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**County specific computer generated reports.*

ACREAGE AND PROPORTIONATE EXTENT OF THE SOILS

Keya Paha County, Nebraska: Published

Map symbol	Soil name	Acres	Percent
Ab	Albaton Variant Clay, 0 To 2 Percent Slopes-----	260	*
AmB	Anselmo Loamy Fine Sand, 0 To 3 Percent Slopes-----	2,920	0.6
An	Anselmo Fine Sandy Loam, 0 To 2 Percent Slopes-----	2,720	0.5
AnC	Anselmo Fine Sandy Loam, 2 To 6 Percent Slopes-----	3,120	0.6
Ba	Barney Fine Sandy Loam, 0 To 2 Percent Slopes-----	970	0.2
Bo	Boel Fine Sandy Loam, 0 To 2 Percent Slopes-----	490	*
Bt	Brocksburg Loam, 0 To 1 Percent Slopes-----	4,620	0.9
Cb	Cass Loam, 0 To 2 Percent Slopes-----	1,480	0.3
CcB	Cass Loam, Channeled, 0 To 3 Percent Slopes-----	610	0.1
DdB	Duda Loamy Fine Sand, 0 To 3 Percent Slopes-----	2,720	0.5
DdC	Duda Loamy Fine Sand, 3 To 6 Percent Slopes-----	4,420	0.9
DuB	Dunday Loamy Fine Sand, 0 To 3 Percent Slopes-----	7,550	1.5
DxB	Dunday-Duda Loamy Fine Sands, 0 To 3 Percent Slopes-----	5,200	1.0
Eo	Els Fine Sand, 0 To 2 Percent Slopes-----	11,420	2.3
Es	Elsmere Loamy Fine Sand, 0 To 2 Percent Slopes-----	8,440	1.7
Ho	Holt Fine Sandy Loam, 0 To 2 Percent Slopes-----	4,550	0.9
HoC	Holt Fine Sandy Loam, 2 To 6 Percent Slopes-----	1,410	0.3
HtC	Holt-Tassel Fine Sandy Loams, 3 To 6 Percent Slopes-----	1,320	0.3
HtD	Holt-Tassel Fine Sandy Loams, 6 To 11 Percent Slopes-----	1,370	0.3
IfD	Inavale Fine Sand, 3 To 11 Percent Slopes-----	530	0.1
IgB	Inavale Fine Sand, Channeled, 0 To 3 Percent Slopes-----	3,850	0.8
IhB	Inavale Loamy Fine Sand, 0 To 3 Percent Slopes-----	6,190	1.2
IpB	Ipaga Loamy Fine Sand, 0 To 3 Percent Slopes-----	22,570	4.6
Ja	Jansen Fine Sandy Loam, 0 To 2 Percent Slopes-----	2,870	0.6
Jn	Jansen Loam, 0 To 2 Percent Slopes-----	1,520	0.3
JnC	Jansen Loam, 2 To 6 Percent Slopes-----	3,370	0.7
JoB	Jansen-Meadin Loams, 0 To 3 Percent Slopes-----	11,470	2.3
LdA	Labu Silty Clay, 6 To 11 Percent Slopes-----	3,200	0.6
LcF	Labu-Sansarc Silty Clays, 11 To 30 Percent Slopes-----	11,870	2.4
Lo	Loup Fine Sandy Loam, 0 To 2 Percent Slopes-----	11,350	2.3
Lp	Loup Fine Sandy Loam, Wet, 0 To 2 Percent Slopes-----	1,970	0.4
MaB	Manter Loamy Fine Sand, 0 To 3 Percent Slopes-----	8,230	1.7
MaC	Manter Loamy Fine Sand, 3 To 6 Percent Slopes-----	3,620	0.7
MfC	Manter Fine Sandy Loam, 2 To 6 Percent Slopes-----	4,770	1.0
MkG	Mariaville-Keota Silt Loams, 15 To 60 Percent Slopes-----	2,580	0.5
Mm	Marlake Loamy Fine Sand, 0 To 1 Percent Slopes-----	340	*
MnF	Meadin Gravelly Sandy Loam, 3 To 30 Percent Slopes-----	9,030	1.8
Mu	Munjor Fine Sandy Loam, 0 To 2 Percent Slopes-----	1,710	0.3
OaB	O'Neill Loamy Fine Sand, 0 To 3 Percent Slopes-----	4,670	0.9
Oe	O'Neill Fine Sandy Loam, 0 To 2 Percent Slopes-----	3,980	0.8
OeC	O'Neill Fine Sandy Loam, 2 To 6 Percent Slopes-----	820	0.2
OeD	O'Neill Fine Sandy Loam, 6 To 9 Percent Slopes-----	610	0.1
OhB	O'Neill-Meadin Fine Sandy Loams, 0 To 3 Percent Slopes-----	7,160	1.4
OkD	O'Neill-Valentine Complex, 1 To 9 Percent Slopes-----	1,730	0.3
On	Onita Silt Loam, 0 To 1 Percent Slopes-----	810	0.2
Or	Ord-Loup Fine Sandy Loams, 0 To 2 Percent Slopes-----	10,570	2.1
Pf	Paka Fine Sandy Loam, 0 To 2 Percent Slopes-----	970	0.2
Ph	Paka Loam, 0 To 1 Percent Slopes-----	450	*
PhB	Paka Loam, 1 To 3 Percent Slopes-----	1,380	0.3
PmC	Paka-Mariaville Loams, 3 To 6 Percent Slopes-----	1,680	0.3
PmF	Paka-Mariaville Loams, 11 To 30 Percent Slopes-----	2,770	0.6
RaB	Ree Loam, 1 To 3 Percent Slopes-----	1,200	0.2
Rb	Ree Loam, Clayey Substratum, 0 To 2 Percent Slopes-----	540	0.1
ReC	Reliance Silt Loam, 2 To 6 Percent Slopes-----	1,220	0.2
RoD	Ronson-Anselmo Fine Sandy Loams, 6 To 9 Percent Slopes-----	3,570	0.7
RoF	Ronson-Anselmo Fine Sandy Loams, 9 To 30 Percent Slopes-----	6,870	1.4
RtB	Ronson-Tassel Fine Sandy Loams, 0 To 3 Percent Slopes-----	20,350	4.1
SaG	Sansarc Silty Clay, 20 To 40 Percent Slopes-----	6,020	1.2
ScF	Schamber Gravelly Sandy Loam, 11 To 30 Percent Slopes-----	790	0.2
SmF	Simeon-Manter-Ronson Complex, 6 To 17 Percent Slopes-----	29,840	6.0
SvF2	Simeon-Valentine Fine Sands, 6 To 17 Percent Slopes, Eroded-----	2,020	0.4
SwB	Simeon-Valentine Loamy Sands, 0 To 3 Percent Slopes-----	5,120	1.0
TaF	Tassel Loamy Fine Sand, 3 To 30 Percent Slopes-----	3,460	0.7
TdE	Tassel-Duda Complex, 3 To 15 Percent Slopes-----	14,590	2.9
TrG	Tassel-Ronson-Duda Complex, 15 To 70 Percent Slopes-----	39,830	8.0
Tu	Tuthill Fine Sandy Loam, 0 To 2 Percent Slopes-----	4,440	0.9
VaF	Valentine Fine Sand, Rolling-----	71,120	14.3
VaD	Valentine Fine Sand, Hilly-----	2,220	0.4
VbD	Valentine Loamy Fine Sand, Gently Rolling-----	20,650	4.2
VcF	Valentine-Tassel Complex, Rolling-----	20,090	4.1
VdC	Valentine-Wewela Loamy Fine Sands, 3 To 6 Percent Slopes-----	2,190	0.4
VdF	Valentine-Wewela Loamy Fine Sands, 6 To 30 Percent Slopes-----	5,330	1.1
Ve	Verdel Silty Clay Loam, 0 To 1 Percent Slopes-----	680	0.1
VeB	Verdel Silty Clay Loam, 1 To 3 Percent Slopes-----	730	0.1
VeC	Verdel Silty Clay Loam, 3 To 6 Percent Slopes-----	1,220	0.2
Vo	Vetal Fine Sandy Loam, 0 To 2 Percent Slopes-----	3,060	0.6
Vt	Vetal Loam, 0 To 1 Percent Slopes-----	3,550	0.7
VtB	Vetal Loam, 1 To 3 Percent Slopes-----	1,270	0.3
VtC	Vetal Loam, 3 To 6 Percent Slopes-----	490	*
WeB	Wewela Fine Sandy Loam, 0 To 3 Percent Slopes-----	2,340	0.5
WeC	Wewela Fine Sandy Loam, 3 To 6 Percent Slopes-----	2,270	0.5
zwa	Water > 40 Acres-----	3,780	0.8
zwb	Water < 40 Acres-----	280	*
	Total-----	495,360	99.9

* Less than 0.1 percent.

Nontechnical Soil Descriptions
Keya Paha County, Nebraska

Nontechnical soil descriptions describe soil properties or management considerations specific to a soil map unit or group of map units, shown in the NonTechnical Descriptions report. These descriptions are written in terminology that Non-technical users of soil survey information can understand. Nontechnical soil descriptions are a powerful tool for creating reports. These high quality, easy to read reports can be generated by conservation planners and other NRCS employees for distribution to land users. Soil map unit descriptions and National Soil Information System records are the basis for these descriptions.

Ab Albaton Variant Clay, 0 To 2 Percent Slopes

Albaton Variant soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on river valley. The runoff class is very high. The parent material consists of calcareous clayey alluvium. This soil is poorly drained. The slowest permeability is very slow. It has a moderate available water capacity and a very high shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 24 inches. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Clayey Overflow - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 4w.

AmB Anselmo Loamy Fine Sand, 0 To 3 Percent Slopes

Anselmo soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flat on tableland, knoll on tableland, stream terrace on valley. The runoff class is very low. The parent material consists of loamy eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 3 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

An Anselmo Fine Sandy Loam, 0 To 2 Percent Slopes

Anselmo soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flat on tableland, stream terrace on valley. The runoff class is very low. The parent material consists of loamy eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 3 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

AnC Anselmo Fine Sandy Loam, 2 To 6 Percent Slopes

Anselmo soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping hill on tableland, valley side on valley. The runoff class is very low. The parent material consists of loamy eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 3 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

Ba Barney Fine Sandy Loam, 0 To 2 Percent Slopes

Barney soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is negligible. The parent material consists of loamy alluvium over sandy and gravelly alluvium. This soil is very poorly drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is frequently flooded and is not ponded. The top of the seasonal high water table is at 6 inches. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Wet Land - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 5w.

Bo Boel Fine Sandy Loam, 0 To 2 Percent Slopes

Boel soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is very low. The parent material consists of sandy alluvium. This soil is somewhat poorly drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is occasionally flooded and is not ponded. The top of the seasonal high water table is at 27 inches. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Subirrigated - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3w. It is in the nonirrigated land capability classification 3w.

Bt Brocksburg Loam, 0 To 1 Percent Slopes

Brocksburg soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level flat on tableland. The runoff class is low. The parent material consists of loamy alluvium over sandy and gravelly alluvium. This soil is well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 2s. It is in the nonirrigated land capability classification 2s.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Keya Paha County, Nebraska

Cb Cass Loam, 0 To 2 Percent Slopes

Cass soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is low. The parent material consists of sandy alluvium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is rarely flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy Lowland - Veg. Zone 3 range site. This soil is in the irrigated land capability class 1 It is in the nonirrigated land capability classification 1.

CcB Cass Loam, Channeled, 0 To 3 Percent Slopes

Cass soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is low. The parent material consists of sandy alluvium. This soil is well drained. The slowest permeability is moderate. It has a moderate available water capacity and a low shrink swell potential. This soil is frequently flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy Lowland - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6w.

DdB Duda Loamy Fine Sand, 0 To 3 Percent Slopes

Duda soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flat on upland, knoll on upland. The runoff class is low. The parent material consists of sandy eolian deposits derived from sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is somewhat excessively drained. The slowest permeability is rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

DdC Duda Loamy Fine Sand, 3 To 6 Percent Slopes

Duda soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping backslope, shoulder, summit hill on tableland. The runoff class is low. The parent material consists of sandy eolian deposits derived from sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is somewhat excessively drained. The slowest permeability is rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 6e.

DuB Dunday Loamy Fine Sand, 0 To 3 Percent Slopes

Dunday soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping hummock on tableland. The runoff class is negligible. The parent material consists of eolian sands. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 4e.

DxB Dunday-Duda Loamy Fine Sands, 0 To 3 Percent Slopes

Dunday soil makes up 55 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping hummock on tableland. The runoff class is negligible. The parent material consists of eolian sands. This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 4e.

Duda soil makes up 45 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping swale on tableland. The runoff class is very low. The parent material consists of sandy eolian deposits derived from sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is somewhat excessively drained. The slowest permeability is rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

Eo Els Fine Sand, 0 To 2 Percent Slopes

Els soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping stream terrace on valley, swale on interdune on sandhills. The runoff class is negligible. The parent material consists of sandy eolian deposits over sandy alluvium. This soil is somewhat poorly drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 27 inches. This soil is in the Subirrigated - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4w. It is in the nonirrigated land capability classification 6e.

Nontechnical Soil Descriptions--Continued
Keya Paha County, Nebraska

Es Elsmere Loamy Fine Sand, 0 To 2 Percent Slopes

Elsmere soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping swale on interdune on sandhills, stream terrace on valley. The runoff class is negligible. The parent material consists of sandy alluvium and/or eolian sands. This soil is somewhat poorly drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 27 inches. This soil is in the Subirrigated - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4w. It is in the nonirrigated land capability classification 4w.

Ho Holt Fine Sandy Loam, 0 To 2 Percent Slopes

Holt soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flat on tableland. The runoff class is low. The parent material consists of loamy residuum weathered from calcareous sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

HOC Holt Fine Sandy Loam, 2 To 6 Percent Slopes

Holt soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping backslope, shoulder, summit hill on tableland. The runoff class is low. The parent material consists of loamy residuum weathered from calcareous sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

HtC Holt-Tassel Fine Sandy Loams, 3 To 6 Percent Slopes

Holt soil makes up 70 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping backslope hill on tableland. The runoff class is low. The parent material consists of loamy residuum weathered from calcareous sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

Longpine soil makes up 30 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping shoulder, summit hill on tableland. The runoff class is medium. The parent material consists of calcareous loamy residuum weathered from sandstone. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6s.

HtD Holt-Tassel Fine Sandy Loams, 6 To 11 Percent Slopes

Holt soil makes up 60 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping backslope hill on tableland. The runoff class is medium. The parent material consists of loamy residuum weathered from calcareous sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

Longpine soil makes up 40 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping shoulder, summit hill on tableland. The runoff class is high. The parent material consists of calcareous loamy residuum weathered from sandstone. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6s.

Nontechnical Soil Descriptions--Continued
Keya Paha County, Nebraska

IfD Inavale Fine Sand, 3 To 11 Percent Slopes

Inavale soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping flood plain on valley. The runoff class is very low. The parent material consists of sandy alluvium. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sands - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 6e.

IgB Inavale Fine Sand, Channeled, 0 To 3 Percent Slopes

Inavale soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is negligible. The parent material consists of sandy alluvium. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is frequently flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy Lowland - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6w.

IhB Inavale Loamy Fine Sand, 0 To 3 Percent Slopes

Inavale soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is negligible. The parent material consists of sandy alluvium. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy Lowland - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 4e.

IpB Ipage Loamy Fine Sand, 0 To 3 Percent Slopes

Ipage soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping hummock on interdune on sandhills, stream terrace on valley. The runoff class is negligible. The parent material consists of eolian sands over sandy alluvium. This soil is moderately well drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. This soil is in the Sandy Lowland - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

Ja Jansen Fine Sandy Loam, 0 To 2 Percent Slopes

Jansen soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flat on tableland. The runoff class is low. The parent material consists of loamy alluvium over sandy and gravelly alluvium. This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

Jn Jansen Loam, 0 To 2 Percent Slopes

Jansen soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flat on tableland. The runoff class is low. The parent material consists of loamy alluvium over sandy and gravelly alluvium. This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 2s. It is in the nonirrigated land capability classification 2s.

JnC Jansen Loam, 2 To 6 Percent Slopes

Jansen soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping backslope, shoulder, summit hill on tableland. The runoff class is low. The parent material consists of loamy alluvium over sandy and gravelly alluvium. This soil is well drained. The slowest permeability is moderate. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

JoB Jansen-Meadin Loams, 0 To 3 Percent Slopes

Jansen soil makes up 60 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping knoll on tableland. The runoff class is low. The parent material consists of loamy alluvium over sandy and gravelly alluvium. This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 2s. It is in the nonirrigated land capability classification 2s.

Nontechnical Soil Descriptions--Continued
Keya Paha County, Nebraska

Meadin soil makes up 40 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping swale on tableland. The runoff class is low. The parent material consists of loamy alluvium over sandy and gravelly alluvium. This soil is excessively drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Shallow To Gravel - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4s. It is in the nonirrigated land capability classification 6s.

LaD Labu Silty Clay, 6 To 11 Percent Slopes

Labu soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping backslope, shoulder, summit hill on plains, valley side on valley. The runoff class is very high. The parent material consists of residuum weathered from clayey shale. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is very slow. It has a low available water capacity and a very high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Clayey - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

LcF Labu-Sansarc Silty Clays, 11 To 30 Percent Slopes

Labu soil makes up 60 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a strongly sloping to steep backslope hill on hills, valley side on valley. The runoff class is very high. The parent material consists of residuum weathered from clayey shale. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is very slow. It has a low available water capacity and a very high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Clayey - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6e.

Sansarc soil makes up 40 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a strongly sloping to steep summit, shoulder valley side on valley, hill on hills. The runoff class is very high. The parent material consists of clayey residuum weathered from shale. The soil is 4 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is very slow. It has a very low available water capacity and a very high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Shallow Clay - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6s.

Lo Loup Fine Sandy Loam, 0 To 2 Percent Slopes

Loup soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping swale on interdune on sandhills. The runoff class is negligible. The parent material consists of sandy alluvium. This soil is poorly drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 9 inches. This soil is in the Wet Subirrigated - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 5w.

Lp Loup Fine Sandy Loam, Wet, 0 To 2 Percent Slopes

Loup soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping swale on interdune on sandhills. The runoff class is negligible. The parent material consists of sandy alluvium. This soil is very poorly drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is frequent ponded. The top of the seasonal high water table is at 0 inches. This soil is in the Wet Land - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 5w.

MaB Manter Loamy Fine Sand, 0 To 3 Percent Slopes

Holt Variant soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flat on tableland, knoll on tableland. The runoff class is very low. The parent material consists of calcareous loamy residuum weathered from sandstone. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

Nontechnical Soil Descriptions--Continued
Keya Paha County, Nebraska

MaC Manter Loamy Fine Sand, 3 To 6 Percent Slopes

Holt Variant soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping backslope, shoulder, summit hill on tableland. The runoff class is very low. The parent material consists of calcareous sandy eolian deposits and/or calcareous loamy eolian deposits and/or calcareous loamy residuum weathered from sandstone. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

Holt Variant soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping backslope, shoulder, summit hill on tableland. The runoff class is very low. The parent material consists of calcareous loamy residuum weathered from sandstone. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

MfC Manter Fine Sandy Loam, 2 To 6 Percent Slopes

Holt Variant soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping backslope, shoulder, summit hill on tableland. The runoff class is very low. The parent material consists of calcareous sandy eolian deposits and/or calcareous loamy eolian deposits and/or calcareous loamy residuum weathered from sandstone. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

Holt Variant soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping backslope, shoulder, summit hill on tableland. The runoff class is very low. The parent material consists of calcareous loamy residuum weathered from sandstone. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

MkG Mariaville-Keota Silt Loams, 15 To 60 Percent Slopes

Mariaville soil makes up 60 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately steep to very steep shoulder, summit valley side on valley. The runoff class is very high. The parent material consists of residuum weathered from siltstone. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 14 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 7s.

Keota soil makes up 40 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately steep to steep backslope valley side on valley. The runoff class is very high. The parent material consists of calcareous loamy residuum weathered from siltstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderate. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Limy Upland - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 7e.

Mm Marlake Loamy Fine Sand, 0 To 1 Percent Slopes

Marlake soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level depression on interdune on sandhills. The runoff class is negligible. The parent material consists of sandy eolian deposits over alluvium. This soil is very poorly drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is frequent ponded. The top of the seasonal high water table is at 0 inches. The soil contains a maximum amount of 5 percent calcium carbonate. It is in the nonirrigated land capability classification 8w.

MnF Meadin Gravelly Sandy Loam, 3 To 30 Percent Slopes

Meadin soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to steep backslope, shoulder, summit hill on tableland, valley side on valley. The runoff class is low. The parent material consists of loamy alluvium over sandy and gravelly alluvium. This soil is excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Shallow To Gravel - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6s.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Keya Paha County, Nebraska

Mu Munjor Fine Sandy Loam, 0 To 2 Percent Slopes

Munjor soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flood plain on valley. The runoff class is very low. The parent material consists of loamy alluvium. This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is rarely flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Sandy Lowland - Veg. Zone 3 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

OaB O'Neill Loamy Fine Sand, 0 To 3 Percent Slopes

O'Neill soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping shoulder, summit, backslope flat on tableland, knoll on tableland. The runoff class is very low. The parent material consists of coarse-loamy alluvium over sandy and gravelly alluvium. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 4e.

Oe O'Neill Fine Sandy Loam, 0 To 2 Percent Slopes

O'Neill soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flat on tableland, stream terrace on valley. The runoff class is very low. The parent material consists of coarse-loamy alluvium over sandy and gravelly alluvium. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

OeC O'Neill Fine Sandy Loam, 2 To 6 Percent Slopes

O'Neill soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping summit, backslope, shoulder hill on tableland. The runoff class is very low. The parent material consists of coarse-loamy alluvium over sandy and gravelly alluvium. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

OeD O'Neill Fine Sandy Loam, 6 To 9 Percent Slopes

O'Neill soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping summit, backslope, shoulder hill on tableland. The runoff class is low. The parent material consists of coarse-loamy alluvium over sandy and gravelly alluvium. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 6e.

OhB O'Neill-Meadin Fine Sandy Loams, 0 To 3 Percent Slopes

O'Neill soil makes up 60 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping knoll on tableland. The runoff class is very low. The parent material consists of coarse-loamy alluvium over sandy and gravelly alluvium. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

Meadin soil makes up 40 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping swale on tableland. The runoff class is very low. The parent material consists of loamy alluvium over sandy and gravelly alluvium. This soil is excessively drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Shallow To Gravel - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4s. It is in the nonirrigated land capability classification 6s.

OkD O'Neill-Valentine Complex, 1 To 9 Percent Slopes

O'Neill soil makes up 60 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a gently sloping footslope, backslope hill on tableland. The runoff class is very low. The parent material consists of coarse-loamy alluvium over sandy and gravelly alluvium. This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

Nontechnical Soil Descriptions--Continued
Keya Paha County, Nebraska

Valentine soil makes up 40 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping dune on tableland. The runoff class is very low. The parent material consists of eolian sands. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sands - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 6e.

On Onita Silt Loam, 0 To 1 Percent Slopes

Onita soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level swale on tableland, flat on tableland. The runoff class is negligible. The parent material consists of loamy colluvium. This soil is well drained. The slowest permeability is very slow. It has a high available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 30 inches. The soil contains a maximum amount of 15 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 1 It is in the nonirrigated land capability classification 2c.

Or Ord-Loup Fine Sandy Loams, 0 To 2 Percent Slopes

Ord soil makes up 70 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flat on interdune on sandhills, stream terrace on valley. The runoff class is very low. The parent material consists of stratified sandy alluvium. This soil is somewhat poorly drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 27 inches. The soil contains a maximum amount of 40 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Subirrigated - Veg. Zone 3 range site. This soil is in the irrigated land capability class 2w. It is in the nonirrigated land capability classification 2w.

Loup soil makes up 30 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping swale on interdune on sandhills, stream terrace on valley. The runoff class is very low. The parent material consists of sandy alluvium. This soil is poorly drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 9 inches. This soil is in the Wet Subirrigated - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 5w.

Pf Paka Fine Sandy Loam, 0 To 2 Percent Slopes

Paka soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flat on tableland. The runoff class is medium. The parent material consists of loamy residuum weathered from siltstone. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

Ph Paka Loam, 0 To 1 Percent Slopes

Paka soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level flat on tableland. The runoff class is low. The parent material consists of loamy residuum weathered from siltstone. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 1 It is in the nonirrigated land capability classification 2c.

PhB Paka Loam, 1 To 3 Percent Slopes

Paka soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a gently sloping backslope, shoulder, summit hill on tableland. The runoff class is medium. The parent material consists of loamy residuum weathered from siltstone. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

PmC Paka-Mariaville Loams, 3 To 6 Percent Slopes

Paka soil makes up 60 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping footslope, backslope hill on tableland. The runoff class is medium. The parent material consists of loamy residuum weathered from siltstone. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

Nontechnical Soil Descriptions--Continued
Keya Paha County, Nebraska

Mariaville soil makes up 40 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping summit, shoulder hill on tableland. The runoff class is high. The parent material consists of residuum weathered from siltstone. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 14 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6s.

PmF Paka-Mariaville Loams, 11 To 30 Percent Slopes

Paka soil makes up 55 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a strongly sloping to steep backslope hill on tableland, valley side on valley. The runoff class is very high. The parent material consists of loamy residuum weathered from siltstone. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Silty - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6e.

Mariaville soil makes up 45 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a strongly sloping to steep summit, shoulder hill on tableland, valley side on valley. The runoff class is very high. The parent material consists of residuum weathered from siltstone. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 14 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6s.

RaB Ree Loam, 1 To 3 Percent Slopes

Ree soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a gently sloping hill on tableland. The runoff class is medium. The parent material consists of loamy alluvial sediments. This soil is well drained. The slowest permeability is moderately slow. It has a high available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

Rb Ree Loam, Clayey Substratum, 0 To 2 Percent Slopes

Ree soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flat on tableland. The runoff class is low. The parent material consists of loamy alluvial sediments. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is very slow. It has a moderate available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 1. It is in the nonirrigated land capability classification 2c.

ReC Reliance Silt Loam, 2 To 6 Percent Slopes

Reliance soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a gently sloping to moderately sloping backslope, shoulder, summit loess hill on tableland. The runoff class is medium. The parent material consists of loess. This soil is well drained. The slowest permeability is very slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 20 percent calcium carbonate. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

RoD Ronson-Anselmo Fine Sandy Loams, 6 To 9 Percent Slopes

Ronson soil makes up 55 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping shoulder, summit hill on tableland. The runoff class is medium. The parent material consists of residuum weathered from calcareous sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

Anselmo soil makes up 45 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping backslope hill on tableland. The runoff class is low. The parent material consists of loamy eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 3 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

Nontechnical Soil Descriptions--Continued
Keya Paha County, Nebraska

RoF Ronson-Anselmo Fine Sandy Loams, 9 To 30 Percent Slopes

Ronson soil makes up 55 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a strongly sloping to steep shoulder, summit hill on tableland, valley side on valley. The runoff class is high. The parent material consists of residuum weathered from calcareous sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6e.

Anselmo soil makes up 45 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a strongly sloping to moderately steep backslope hill on tableland, valley side on valley. The runoff class is low. The parent material consists of loamy eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 3 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6e.

RtB Ronson-Tassel Fine Sandy Loams, 0 To 3 Percent Slopes

Ronson soil makes up 55 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping swale on tableland. The runoff class is low. The parent material consists of residuum weathered from calcareous sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

Longpine soil makes up 45 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping knoll on tableland. The runoff class is low. The parent material consists of calcareous loamy residuum weathered from sandstone. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6s.

SaG Sansarc Silty Clay, 20 To 40 Percent Slopes

Sansarc soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a steep to steep shoulder, summit, backslope hill on hills, valley side on valley. The runoff class is very high. The parent material consists of clayey residuum weathered from shale. The soil is 4 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is very slow. It has a very low available water capacity and a very high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Shallow Clay - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 7e.

ScF Schamber Gravelly Sandy Loam, 11 To 30 Percent Slopes

Schamber soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a strongly sloping to steep shoulder, backslope, summit valley side on valley, hill on tableland. The runoff class is medium. The parent material consists of sandy and gravelly outwash. This soil is excessively drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Shallow To Gravel - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6s.

SmF Simeon-Manter-Ronson Complex, 6 To 17 Percent Slopes

Simeon soil makes up 40 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep shoulder, summit hill on tableland, valley side on valley. The runoff class is very low. The parent material consists of sandy and gravelly alluvium. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Shallow To Gravel - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6s.

Holt Variant soil makes up 35 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping backslope hill on tableland, valley side on valley. The runoff class is low. The parent material consists of calcareous loamy residuum weathered from sandstone. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 6e.

Nontechnical Soil Descriptions--Continued
Keya Paha County, Nebraska

Ronson soil makes up 25 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep backslope, shoulder hill on tableland, valley side on valley. The runoff class is medium. The parent material consists of residuum weathered from calcareous sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6e.

SvF2 Simeon-Valentine Fine Sands, 6 To 17 Percent Slopes, Eroded

Simeon soil makes up 60 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep shoulder, summit hill on tableland, valley side on valley. The runoff class is very low. The parent material consists of sandy and gravelly alluvium. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Shallow To Gravel - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6s.

Valentine soil makes up 40 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep backslope valley side on valley, hill on tableland. The runoff class is very low. The parent material consists of eolian sands. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sands - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6e.

SwB Simeon-Valentine Loamy Sands, 0 To 3 Percent Slopes

Simeon soil makes up 65 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping swale on tableland, stream terrace on valley. The runoff class is negligible. The parent material consists of sandy and gravelly alluvium. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Shallow To Gravel - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4s. It is in the nonirrigated land capability classification 6s.

Valentine soil makes up 35 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping stream terrace on valley, hummock on tableland. The runoff class is negligible. The parent material consists of eolian sands. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 4e.

TaF Tassel Loamy Fine Sand, 3 To 30 Percent Slopes

Longpine soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to steep shoulder, summit valley side on valley, butte on tableland. The runoff class is high. The parent material consists of calcareous loamy residuum weathered from sandstone. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6s.

TdE Tassel-Duda Complex, 3 To 15 Percent Slopes

Longpine soil makes up 60 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep shoulder, summit hill on tableland, valley side on valley. The runoff class is high. The parent material consists of calcareous loamy residuum weathered from sandstone. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6s.

Duda soil makes up 40 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep backslope hill on tableland, swale on tableland, valley side on valley. The runoff class is high. The parent material consists of sandy eolian deposits derived from sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is somewhat excessively drained. The slowest permeability is rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sandy - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Keya Paha County, Nebraska

TrG Tassel-Ronson-Duda Complex, 15 To 70 Percent Slopes

Longpine soil makes up 40 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a steep to very steep shoulder valley side on valley. The runoff class is very high. The parent material consists of calcareous loamy residuum weathered from sandstone. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 7s.

Ronson soil makes up 35 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately steep to steep backslope valley side on valley. The runoff class is high. The parent material consists of residuum weathered from calcareous sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6e.

Duda soil makes up 25 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately steep to steep backslope valley side on valley. The runoff class is high. The parent material consists of sandy eolian deposits derived from sandstone. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is somewhat excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Savannah - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6e.

Tu Tuthill Fine Sandy Loam, 0 To 2 Percent Slopes

Hennings soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping flat on tableland. The runoff class is low. The parent material consists of loamy residuum over soft calcareous sandstone. The soil is 40 to 60 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately slow. It has a low available water capacity and a moderate shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

VaF Valentine Fine Sand, Rolling

Valentine soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a strongly sloping to steep dune on sandhills. The runoff class is very low. The parent material consists of eolian sands. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sands - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6e.

VaG Valentine Fine Sand, Hilly

Valentine soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a steep to very steep dune on sandhills. The runoff class is low. The parent material consists of eolian sands. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Choppy Sands - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 7e.

VbD Valentine Loamy Fine Sand, Gently Rolling

Valentine soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping dune on tableland. The runoff class is very low. The parent material consists of eolian sands. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sands - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 6e.

VcF Valentine-Tassel Complex, Rolling

Valentine soil makes up 75 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep dune on upland, valley side on valley. The runoff class is very low. The parent material consists of eolian sands. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sands - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6e.

Nontechnical Soil Descriptions--Continued
Keya Paha County, Nebraska

Longpine soil makes up 25 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to moderately steep shoulder, summit hill on tableland, swale on tableland, valley side on valley. The runoff class is high. The parent material consists of calcareous loamy residuum weathered from sandstone. The soil is 10 to 20 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is moderately rapid. It has a very low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 15 percent calcium carbonate. This soil is in the Shallow Limy - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6s.

VdC Valentine-Wewela Loamy Fine Sands, 3 To 6 Percent Slopes

Valentine soil makes up 40 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping dune on plains. The runoff class is very low. The parent material consists of eolian sands. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sands - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 6e.

Valentine soil makes up 30 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping dune on plains. The runoff class is very low. The parent material consists of eolian sands. This soil is excessively drained. The slowest permeability is moderately slow. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 5 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 6e.

Wewela soil makes up 30 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping swale on plains, knoll on plains. The runoff class is very high. The parent material consists of loamy eolian deposits over clayey residuum weathered from clayey shale. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is very slow. It has a low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 6e.

VdF Valentine-Wewela Loamy Fine Sands, 6 To 30 Percent Slopes

Valentine soil makes up 40 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to steep backslope valley side on valley. The runoff class is low. The parent material consists of eolian sands. This soil is excessively drained. The slowest permeability is rapid. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. This soil is in the Sands - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6e.

Valentine soil makes up 30 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to steep summit, shoulder valley side on valley. The runoff class is low. The parent material consists of eolian sands. This soil is excessively drained. The slowest permeability is slow. It has a low available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The top of the seasonal high water table is at 48 inches. The soil contains a maximum amount of 5 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Sandy - Veg. Zone 3 range site. It is in the nonirrigated land capability classification 6e.

Wewela soil makes up 30 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping to strongly sloping shoulder, backslope, summit valley side on valley. The runoff class is very high. The parent material consists of loamy eolian deposits over clayey residuum weathered from clayey shale. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is very slow. It has a low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 4e. It is in the nonirrigated land capability classification 6e.

Ve Verdel Silty Clay Loam, 0 To 1 Percent Slopes

Verdel soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level stream terrace on valley. The runoff class is very high. The parent material consists of clayey alluvium derived from shale. This soil is well drained. The slowest permeability is very slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Clayey - Veg. Zone 3 range site. This soil is in the irrigated land capability class 2s. It is in the nonirrigated land capability classification 2s.

Nontechnical Soil Descriptions--Continued
Keya Paha County, Nebraska

VeB Verdel Silty Clay Loam, 1 To 3 Percent Slopes

Verdel soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a gently sloping stream terrace on valley. The runoff class is very high. The parent material consists of clayey alluvium derived from shale. This soil is well drained. The slowest permeability is very slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Clayey - Veg. Zone 3 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

VeC Verdel Silty Clay Loam, 3 To 6 Percent Slopes

Verdel soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping stream terrace on valley. The runoff class is very high. The parent material consists of clayey alluvium derived from shale. This soil is well drained. The slowest permeability is very slow. It has a moderate available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. It has a horizon that is slightly sodic. This soil is in the Clayey - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

Vo Vetat Fine Sandy Loam, 0 To 2 Percent Slopes

Vetat soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping swale on upland, stream terrace on valley. The runoff class is very low. The parent material consists of loamy alluvium over eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a moderate available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Sandy - Veg. Zone 3 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

Vt Vetat Loam, 0 To 1 Percent Slopes

Vetat soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level swale on upland, stream terrace on valley. The runoff class is negligible. The parent material consists of loamy alluvium over eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 1. It is in the nonirrigated land capability classification 2c.

VtB Vetat Loam, 1 To 3 Percent Slopes

Vetat soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a gently sloping footslope hill on tableland, stream terrace on valley. The runoff class is very low. The parent material consists of loamy alluvium over eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 2e. It is in the nonirrigated land capability classification 2e.

VtC Vetat Loam, 3 To 6 Percent Slopes

Vetat soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping footslope hill on tableland. The runoff class is very low. The parent material consists of loamy alluvium over eolian deposits. This soil is well drained. The slowest permeability is moderately rapid. It has a high available water capacity and a low shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 5 percent calcium carbonate. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

WeB Wewela Fine Sandy Loam, 0 To 3 Percent Slopes

Wewela soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a nearly level to gently sloping knoll on plains, flat on plains. The runoff class is high. The parent material consists of loamy eolian deposits over clayey residuum weathered from clayey shale. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is very slow. It has a low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

NONTECHNICAL SOIL DESCRIPTIONS--Continued
Keya Paha County, Nebraska

WeC Wewela Fine Sandy Loam, 3 To 6 Percent Slopes

Wewela soil makes up 100 percent of the map unit. This map unit is in the Dakota-Nebraska Eroded Tableland Major Land Resource Area. This soil occurs on a moderately sloping backslope, shoulder, summit hill on plains. The runoff class is very high. The parent material consists of loamy eolian deposits over clayey residuum weathered from clayey shale. The soil is 20 to 40 inches deep to bedrock (paralithic). This soil is well drained. The slowest permeability is very slow. It has a low available water capacity and a high shrink swell potential. This soil is not flooded and is not ponded. The seasonal high water table is at a depth of more than 6 feet. The soil contains a maximum amount of 10 percent calcium carbonate. This soil is in the Silty - Veg. Zone 3 range site. This soil is in the irrigated land capability class 3e. It is in the nonirrigated land capability classification 3e.

Ab—Albaton Variant clay, 0 to 2 percent slopes

Map Unit Composition

Albaton Variant: 100 percent

Component Descriptions

Albaton Variant

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Flood plain on river valley

Parent material: Calcareous clayey alluvium

Slope: 0 to 2 percent

Drainage class: Poorly drained

Slowest permeability: Very slow (About 0.01 in/hr)

Available water capacity: Moderate (About 6.5 inches)

Shrink-swell potential: Very high (About 17.0 LEP)

Flooding hazard: Occasional

Depth to seasonal water saturation: About 12 to 36 inches

Runoff class: Very high

Ecological site: Clayey Overflow - Veg. Zone 3

Land capability (nonirrigated): 4w

Typical Profile:

H1—0 to 27 inches; clay

H2—27 to 40 inches; clay loam

H3—40 to 60 inches; sand

AmB—Anselmo loamy fine sand, 0 to 3 percent slopes

Map Unit Composition

Anselmo: 100 percent

Component Descriptions

Anselmo

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Flat on tableland, knoll on tableland, stream terrace on valley

Parent material: Loamy eolian deposits

Slope: 0 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Moderate (About 8.9 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 3e

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 17 inches; loamy fine sand

H2—17 to 54 inches; fine sandy loam

H3—54 to 60 inches; loamy fine sand

An—Anselmo fine sandy loam, 0 to 2 percent slopes

Map Unit Composition

Anselmo: 100 percent

Component Descriptions

Anselmo

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Flat on tableland, stream terrace on valley

Parent material: Loamy eolian deposits

Slope: 0 to 2 percent

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Moderate (About 8.9 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 2e

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 6 inches; fine sandy loam

H2—6 to 24 inches; fine sandy loam

H3—24 to 60 inches; fine sand

**Minor Components
Perched Wt**

AnC—Anselmo fine sandy loam, 2 to 6 percent slopes

Map Unit Composition

Anselmo: 100 percent

Component Descriptions

Anselmo

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland, valley side on valley

Parent material: Loamy eolian deposits

Slope: 2 to 6 percent

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 1.98 in/hr)

Available water capacity: High (About 9.5 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 3e

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 6 inches; fine sandy loam

H2—6 to 44 inches; fine sandy loam

H3—44 to 60 inches; loamy fine sand

Minor Components**Perched Wt****Ba—Barney fine sandy loam, 0 to 2 percent slopes**

Map Unit Composition

Barney: 100 percent

Component Descriptions

Barney

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Flood plain on valley

Parent material: Loamy alluvium over sandy and gravelly alluvium

Slope: 0 to 2 percent

Drainage class: Very poorly drained

Slowest permeability: Moderately rapid (About 1.98 in/hr)

Available water capacity: Low (About 5.5 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: Frequent

Depth to seasonal water saturation: About 0 to 12 inches

Runoff class: Negligible

Ecological site: Wet Land - Veg. Zone 3

Land capability (nonirrigated): 5w

Typical Profile:

H1—0 to 7 inches; fine sandy loam

H2—7 to 30 inches; stratified sand to loam

H3—30 to 60 inches; sand

Bo—Boel fine sandy loam, 0 to 2 percent slopes

Map Unit Composition

Boel: 100 percent

Component Descriptions

Boel

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Flood plain on valley

Parent material: Sandy alluvium

Slope: 0 to 2 percent

Drainage class: Somewhat poorly drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Low (About 5.4 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: Occasional

Depth to seasonal water saturation: About 18 to 36 inches

Runoff class: Very low

Ecological site: Subirrigated - Veg. Zone 3

Land capability (irrigated): 3w

Land capability (nonirrigated): 3w

Typical Profile:

H1—0 to 7 inches; fine sandy loam

H2—7 to 60 inches; stratified sand to loam

Minor Components**Barney**

Slope: 0 to 2 percent

Drainage class: Very poorly drained

Ecological site: Wet Land - Veg. Zone 3

Bt—Brocksburg loam, 0 to 1 percent slopes

Map Unit Composition

Brocksburg: 100 percent

Component Descriptions

Brocksburg

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Flat on tableland

Parent material: Loamy alluvium over sandy and gravelly alluvium

Slope: 0 to 1 percent

Drainage class: Well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: Moderate (About 6.7 inches)

Shrink-swell potential: Moderate (About 3.0 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Silty - Veg. Zone 3

Land capability (irrigated): 2s

Land capability (nonirrigated): 2s

Typical Profile:

H1—0 to 15 inches; loam

H2—15 to 30 inches; clay loam

H3—30 to 80 inches; gravelly sand

Minor Components

Perched Wt

Cb—Cass loam, 0 to 2 percent slopes

Map Unit Composition

Cass: 100 percent

Component Descriptions

Cass

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Flood plain on valley

Parent material: Sandy alluvium

Slope: 0 to 2 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.6 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: Rare

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy Lowland - Veg. Zone 3

Land capability (irrigated): 1

Land capability (nonirrigated): 1

Typical Profile:

H1—0 to 10 inches; loam

H2—10 to 40 inches; fine sandy loam

H3—40 to 60 inches; stratified loamy fine sand to loam

Minor Components

Wt At 0-1 Foot

CcB—Cass loam, Channeled, 0 to 3 percent slopes

Map Unit Composition

Cass: 100 percent

Component Descriptions

Cass

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Flood plain on valley

Parent material: Sandy alluvium

Slope: 0 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Moderate (About 8.6 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: Frequent

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy Lowland - Veg. Zone 3

Land capability (nonirrigated): 6w

Typical Profile:

H1—0 to 10 inches; loam

H2—10 to 40 inches; fine sandy loam

H3—40 to 60 inches; stratified loamy fine sand to loam

Minor Components
Wt At 0-1 Foot

DdB—Duda loamy fine sand, 0 to 3 percent slopes

Map Unit Composition

Duda: 100 percent

Component Descriptions

Duda

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Flat on upland, knoll on upland

Parent material: Sandy eolian deposits derived from sandstone

Slope: 0 to 3 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Somewhat excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Very low (About 2.4 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 4e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 6 inches; loamy fine sand

H2—6 to 25 inches; loamy fine sand

Cr—25 to 60 inches; weathered bedrock

DdC—Duda loamy fine sand, 3 to 6 percent slopes

Map Unit Composition

Duda: 100 percent

Component Descriptions

Duda

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland

Hillslope position: Backslope, shoulder, summit

Parent material: Sandy eolian deposits derived from sandstone

Slope: 3 to 6 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Somewhat excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Very low (About 2.4 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 4e

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 6 inches; loamy fine sand

H2—6 to 25 inches; loamy fine sand

Cr—25 to 60 inches; weathered bedrock

DuB—Dunday loamy fine sand, 0 to 3 percent slopes

Map Unit Composition

Dunday: 100 percent

Component Descriptions

Dunday

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hummock on tableland

Parent material: Eolian sands

Slope: 0 to 3 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 5.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Negligible

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 3e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 15 inches; loamy fine sand
H2—15 to 60 inches; loamy fine sand

Minor Components
Wt At 0-1 Foot

**DxB—Dunday-Duda loamy fine
sands, 0 to 3 percent slopes**

Map Unit Composition

Dunday: 55 percent
Duda: 45 percent

Component Descriptions

Dunday

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hummock on tableland

Parent material: Eolian sands

Slope: 0 to 3 percent

Drainage class: Somewhat excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 5.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Negligible

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 3e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 15 inches; loamy fine sand
H2—15 to 60 inches; fine sand

Duda

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Swale on tableland

Parent material: Sandy eolian deposits derived from sandstone

Slope: 0 to 3 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Somewhat excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Very low (About 2.4 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 4e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 6 inches; loamy fine sand
H2—6 to 25 inches; loamy fine sand
Cr—25 to 60 inches; weathered bedrock

Minor Components
Wt At 0-1 Foot

**Eo—Els fine sand, 0 to 2 percent
slopes**

Map Unit Composition

Els: 100 percent

Component Descriptions

Els

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Stream terrace on valley, swale on interdune on sandhills

Parent material: Sandy eolian deposits over sandy alluvium

Slope: 0 to 2 percent

Drainage class: Somewhat poorly drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 3.9 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 18 to 36 inches

Runoff class: Negligible

Ecological site: Subirrigated - Veg. Zone 3

Land capability (irrigated): 4w

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 7 inches; fine sand
H2—7 to 13 inches; fine sand
H3—13 to 60 inches; fine sand

Minor Components

Loup

Slope: 0 to 2 percent

Drainage class: Poorly drained

Ecological site: Wet Subirrigated - Veg. Zone 3

Marlake

Slope: 0 to 1 percent

Drainage class: Very poorly drained

Es—Elsmere loamy fine sand, 0 to 2 percent slopes

Map Unit Composition

Elsmere: 100 percent

Component Descriptions

Elsmere

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Swale on interdune on sandhills, stream terrace on valley

Parent material: Sandy alluvium and/or eolian sands

Slope: 0 to 2 percent

Drainage class: Somewhat poorly drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 4.5 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 18 to 36 inches

Runoff class: Negligible

Ecological site: Subirrigated - Veg. Zone 3

Land capability (irrigated): 4w

Land capability (nonirrigated): 4w

Typical Profile:

H1—0 to 12 inches; loamy fine sand

H2—12 to 24 inches; loamy fine sand

H3—24 to 60 inches; fine sand

Minor Components

Marlake

Slope: 0 to 1 percent

Drainage class: Very poorly drained

Ho—Holt fine sandy loam, 0 to 2 percent slopes

Map Unit Composition

Holt: 100 percent

Component Descriptions

Holt

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Flat on tableland

Parent material: Loamy residuum weathered from calcareous sandstone

Slope: 0 to 2 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 1.98 in/hr)

Available water capacity: Low (About 4.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 3e

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 6 inches; fine sandy loam

H2—6 to 10 inches; fine sandy loam

H3—10 to 34 inches; loamy fine sand

Minor Components

Perched Wt

HoC—Holt fine sandy loam, 2 to 6 percent slopes

Map Unit Composition

Holt: 100 percent

Component Descriptions

Holt

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland

Hillslope position: Backslope, shoulder, summit

Parent material: Loamy residuum weathered from calcareous sandstone

Slope: 2 to 6 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 1.98 in/hr)

Available water capacity: Low (About 4.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 6 inches; fine sandy loam
 H2—6 to 10 inches; fine sandy loam
 H3—10 to 34 inches; fine sandy loam
 Cr—34 to 60 inches; weathered bedrock

HtC—Holt-Tassel fine sandy loams, 3 to 6 percent slopes

Map Unit Composition

Holt: 70 percent
 Longpine: 30 percent

Component Descriptions

Holt

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland

Hillslope position: Backslope

Parent material: Loamy residuum weathered from calcareous sandstone

Slope: 3 to 6 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 1.98 in/hr)

Available water capacity: Low (About 4.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 3e

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 6 inches; fine sandy loam
 H2—6 to 10 inches; fine sandy loam
 H3—10 to 34 inches; loamy fine sand
 Cr—34 to 60 inches; weathered bedrock

Longpine

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland

Hillslope position: Shoulder, summit

Parent material: Calcareous loamy residuum weathered from sandstone

Slope: 3 to 6 percent

Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Very low (About 1.9 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Shallow Limy - Veg. Zone 3

Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 9 inches; fine sandy loam
 H2—9 to 13 inches; gravelly fine sandy loam
 Cr—13 to 60 inches; unweathered bedrock

HtD—Holt-Tassel fine sandy loams, 6 to 11 percent slopes

Map Unit Composition

Holt: 60 percent
 Longpine: 40 percent

Component Descriptions

Holt

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland

Hillslope position: Backslope

Parent material: Loamy residuum weathered from calcareous sandstone

Slope: 6 to 11 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 1.98 in/hr)

Available water capacity: Low (About 4.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 4e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 6 inches; fine sandy loam

H2—6 to 10 inches; fine sandy loam
 H3—10 to 34 inches; fine sandy loam
 Cr—34 to 60 inches; weathered bedrock

Longpine
MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Hill on tableland
Hillslope position: Shoulder, summit
Parent material: Calcareous loamy residuum weathered from sandstone
Slope: 6 to 11 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Very low (About 1.9 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Shallow Limy - Veg. Zone 3
Land capability (nonirrigated): 6s

Typical Profile:
 H1—0 to 9 inches; fine sandy loam
 H2—9 to 13 inches; gravelly fine sandy loam
 Cr—13 to 60 inches; unweathered bedrock

IfD—Inavale fine sand, 3 to 11 percent slopes

Map Unit Composition

Inavale: 100 percent

Component Descriptions
 Inavale
MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Flood plain on valley
Parent material: Sandy alluvium
Slope: 3 to 11 percent
Drainage class: Excessively drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Low (About 4.9 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Sands - Veg. Zone 3

Land capability (irrigated): 4e
Land capability (nonirrigated): 6e

Typical Profile:
 H1—0 to 6 inches; fine sand
 H2—6 to 24 inches; fine sand
 H3—24 to 60 inches; stratified fine sand to fine sandy loam

IgB—Inavale fine sand, Channeled, 0 to 3 percent slopes

Map Unit Composition

Inavale: 100 percent

Component Descriptions
 Inavale
MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Flood plain on valley
Parent material: Sandy alluvium
Slope: 0 to 3 percent
Drainage class: Excessively drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Low (About 4.9 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: Frequent
Depth to seasonal water saturation: More than 6 feet
Runoff class: Negligible
Ecological site: Sandy Lowland - Veg. Zone 3
Land capability (nonirrigated): 6w

Typical Profile:
 H1—0 to 6 inches; fine sand
 H2—6 to 24 inches; fine sand
 H3—24 to 60 inches; stratified fine sand to fine sandy loam

Minor Components

Barney
Slope: 0 to 2 percent
Drainage class: Very poorly drained
Ecological site: Wet Land - Veg. Zone 3

IhB—Inavale loamy fine sand, 0 to 3 percent slopes

Map Unit Composition

Inavale: 100 percent

Component Descriptions

Inavale

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Flood plain on valley

Parent material: Sandy alluvium

Slope: 0 to 3 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 5.0 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Negligible

Ecological site: Sandy Lowland - Veg. Zone 3

Land capability (irrigated): 3e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 5 inches; loamy fine sand

H2—5 to 15 inches; fine sand

H3—15 to 60 inches; stratified sand to fine sandy loam

Minor Components

Barney

Slope: 0 to 2 percent

Drainage class: Very poorly drained

Ecological site: Wet Land - Veg. Zone 3

IpB—Ipage loamy fine sand, 0 to 3 percent slopes

Map Unit Composition

Ipage: 100 percent

Component Descriptions

Ipage

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hummock on interdune on sandhills, stream terrace on valley

Parent material: Eolian sands over sandy alluvium

Slope: 0 to 3 percent

Drainage class: Moderately well drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 4.4 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 36 to 60 inches

Runoff class: Negligible

Ecological site: Sandy Lowland - Veg. Zone 3

Land capability (irrigated): 4e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 6 inches; loamy fine sand

H2—6 to 60 inches; fine sand

Minor Components

Loup

Slope: 0 to 2 percent

Drainage class: Poorly drained

Ecological site: Wet Subirrigated - Veg. Zone 3

Ja—Jansen fine sandy loam, 0 to 2 percent slopes

Map Unit Composition

Jansen: 100 percent

Component Descriptions

Jansen

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Flat on tableland

Parent material: Loamy alluvium over sandy and gravelly alluvium

Slope: 0 to 2 percent

Drainage class: Well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: Low (About 5.5 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 2e

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 6 inches; fine sandy loam

H2—6 to 22 inches; clay loam

H3—22 to 33 inches; loamy coarse sand

H4—33 to 60 inches; gravelly coarse sand

Jn—Jansen loam, 0 to 2 percent slopes

Map Unit Composition

Jansen: 100 percent

Component Descriptions

Jansen

MLRA: 66 - Dakota-Nebraska Eroded Tableland*Landform:* Flat on tableland*Parent material:* Loamy alluvium over sandy and gravelly alluvium*Slope:* 0 to 2 percent*Drainage class:* Well drained*Slowest permeability:* Moderately slow (About 0.20 in/hr)*Available water capacity:* Low (About 5.8 inches)*Shrink-swell potential:* Moderate (About 4.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Low*Ecological site:* Silty - Veg. Zone 3*Land capability (irrigated):* 2s*Land capability (nonirrigated):* 2s*Typical Profile:*

H1—0 to 9 inches; loam

H2—9 to 24 inches; clay loam

H3—24 to 27 inches; loamy sand

H4—27 to 60 inches; gravelly sand

Minor Components**Perched Wt****JnC—Jansen loam, 2 to 6 percent slopes**

Map Unit Composition

Jansen: 100 percent

Component Descriptions

Jansen

MLRA: 66 - Dakota-Nebraska Eroded Tableland*Landform:* Hill on tableland*Hillslope position:* Backslope, shoulder, summit*Parent material:* Loamy alluvium over sandy and gravelly alluvium*Slope:* 2 to 6 percent*Drainage class:* Well drained*Slowest permeability:* Moderate (About 0.60 in/hr)*Available water capacity:* Low (About 5.8 inches)*Shrink-swell potential:* Moderate (About 4.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Low*Ecological site:* Silty - Veg. Zone 3*Land capability (irrigated):* 3e*Land capability (nonirrigated):* 3e*Typical Profile:*

H1—0 to 9 inches; loam

H2—9 to 24 inches; clay loam

H3—24 to 27 inches; loamy sand

H4—27 to 60 inches; gravelly sand

Minor Components**Perched Wt****JoB—Jansen-Meadin loams, 0 to 3 percent slopes**

Map Unit Composition

Jansen: 60 percent

Meadin: 40 percent

Component Descriptions

Jansen

MLRA: 66 - Dakota-Nebraska Eroded Tableland*Landform:* Knoll on tableland*Parent material:* Loamy alluvium over sandy and gravelly alluvium*Slope:* 0 to 3 percent*Drainage class:* Well drained*Slowest permeability:* Moderately slow (About 0.20 in/hr)*Available water capacity:* Low (About 5.7 inches)*Shrink-swell potential:* Moderate (About 4.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Low*Ecological site:* Silty - Veg. Zone 3*Land capability (irrigated):* 2s

Land capability (nonirrigated): 2s

Typical Profile:

- H1—0 to 12 inches; loam
- H2—12 to 22 inches; clay loam
- H3—22 to 26 inches; loamy coarse sand
- H4—26 to 60 inches; gravelly coarse sand

Meadin

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Swale on tableland

Parent material: Loamy alluvium over sandy and gravelly alluvium

Slope: 0 to 3 percent

Drainage class: Excessively drained

Slowest permeability: Moderate (About 0.57 in/hr)

Available water capacity: Low (About 4.4 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Shallow To Gravel - Veg. Zone 3

Land capability (irrigated): 4s

Land capability (nonirrigated): 6s

Typical Profile:

- H1—0 to 10 inches; loam
- H2—10 to 16 inches; very gravelly loamy sand
- H3—16 to 60 inches; gravelly sand

LaD—Labu silty clay, 6 to 11 percent slopes

Map Unit Composition

Labu: 100 percent

Component Descriptions

Labu

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on plains, valley side on valley

Hillslope position: Backslope, shoulder, summit

Parent material: Residuum weathered from clayey shale

Slope: 6 to 11 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Very slow (About 0.00 in/hr)

Available water capacity: Low (About 3.3 inches)

Shrink-swell potential: Very high (About 17.0 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very high

Ecological site: Clayey - Veg. Zone 3

Land capability (irrigated): 4e

Land capability (nonirrigated): 4e

Typical Profile:

- H1—0 to 36 inches; silty clay
- Cr—36 to 60 inches; weathered bedrock

Minor Components Ponded Soils

LcF—Labu-Sansarc silty clays, 11 to 30 percent slopes

Map Unit Composition

Labu: 60 percent

Sansarc: 40 percent

Component Descriptions

Labu

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on hills, valley side on valley

Hillslope position: Backslope

Parent material: Residuum weathered from clayey shale

Slope: 11 to 30 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Very slow (About 0.00 in/hr)

Available water capacity: Low (About 3.3 inches)

Shrink-swell potential: Very high (About 17.0 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very high

Ecological site: Clayey - Veg. Zone 3

Land capability (nonirrigated): 6e

Typical Profile:

- H1—0 to 36 inches; silty clay
- Cr—36 to 60 inches; weathered bedrock

Sansarc*MLRA:* 66 - Dakota-Nebraska Eroded Tableland*Landform:* Valley side on valley, hill on hills*Hillslope position:* Summit, shoulder*Parent material:* Clayey residuum weathered from shale*Slope:* 11 to 30 percent*Depth to restrictive feature:* 4 to 20 inches to bedrock (paralithic)*Drainage class:* Well drained*Slowest permeability:* Very slow (About 0.01 in/hr)*Available water capacity:* Very low (About 1.1 inches)*Shrink-swell potential:* Very high (About 17.0 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Very high*Ecological site:* Shallow Clay - Veg. Zone 3*Land capability (nonirrigated):* 6s*Typical Profile:*

H1—0 to 4 inches; silty clay

H2—4 to 12 inches; clay

Cr—14 to 60 inches; weathered bedrock

Minor Components**Albaton***Slope:* 0 to 2 percent*Drainage class:* Poorly drained*Ecological site:* Clayey Overflow - Veg. Zone 3**Lo—Loup fine sandy loam, 0 to 2 percent slopes**

Map Unit Composition

Loup: 100 percent

Component Descriptions

Loup*MLRA:* 66 - Dakota-Nebraska Eroded Tableland*Landform:* Swale on interdune on sandhills*Parent material:* Sandy alluvium*Slope:* 0 to 2 percent*Drainage class:* Poorly drained*Slowest permeability:* Moderately rapid (About 2.00 in/hr)*Available water capacity:* Low (About 5.2 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* About 0 to 18 inches*Runoff class:* Negligible*Ecological site:* Wet Subirrigated - Veg. Zone 3*Land capability (nonirrigated):* 5w*Typical Profile:*

H1—0 to 11 inches; fine sandy loam

H2—11 to 60 inches; fine sand

Lp—Loup fine sandy loam, Wet, 0 to 2 percent slopes

Map Unit Composition

Loup: 100 percent

Component Descriptions

Loup*MLRA:* 66 - Dakota-Nebraska Eroded Tableland*Landform:* Swale on interdune on sandhills*Parent material:* Sandy alluvium*Slope:* 0 to 2 percent*Drainage class:* Very poorly drained*Slowest permeability:* Moderately rapid (About 2.00 in/hr)*Available water capacity:* Low (About 5.2 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Ponding hazard:* Frequent*Depth to seasonal water saturation:* About 0 to 0 inches*Runoff class:* Negligible*Ecological site:* Wet Land - Veg. Zone 3*Land capability (nonirrigated):* 5w*Typical Profile:*

H1—0 to 11 inches; fine sandy loam

H2—11 to 60 inches; fine sand

MaB—Manter loamy fine sand, 0 to 3 percent slopes

Map Unit Composition

Holt Variant: 100 percent

Component Descriptions

Holt Variant*MLRA:* 66 - Dakota-Nebraska Eroded Tableland*Landform:* Flat on tableland, knoll on tableland*Parent material:* Calcareous loamy residuum weathered from sandstone*Slope:* 0 to 3 percent*Depth to restrictive feature:* 40 to 60 inches to bedrock (paralithic)*Drainage class:* Well drained*Slowest permeability:* Moderately rapid (About 1.98 in/hr)*Available water capacity:* Moderate (About 6.0 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Very low*Ecological site:* Sandy - Veg. Zone 3*Land capability (irrigated):* 3e*Land capability (nonirrigated):* 3e*Typical Profile:*

H1—0 to 12 inches; loamy fine sand

H2—12 to 48 inches; fine sandy loam

Cr—48 to 60 inches; weathered bedrock

Minor Components**Perched Wt****MaC—Manter loamy fine sand, 3 to 6 percent slopes****Map Unit Composition**

Holt Variant: 100 percent

Component Descriptions**Holt Variant***MLRA:* 66 - Dakota-Nebraska Eroded Tableland*Landform:* Hill on tableland*Hillslope position:* Backslope, shoulder, summit*Parent material:* Calcareous sandy eolian deposits and/or calcareous loamy eolian deposits and/or

calcareous loamy residuum weathered from sandstone, calcareous loamy residuum weathered from sandstone

Slope: 3 to 6 percent*Depth to restrictive feature:* 40 to 60 inches to bedrock (paralithic)*Drainage class:* Well drained*Slowest permeability:* Moderately rapid (About 1.98 in/hr)*Available water capacity:* Moderate (About 6.0 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Very low*Ecological site:* Sandy - Veg. Zone 3*Land capability (irrigated):* 4e*Land capability (nonirrigated):* 4e*Typical Profile:*

H1—0 to 12 inches; loamy fine sand

H2—12 to 48 inches; fine sandy loam

Cr—48 to 60 inches; weathered bedrock

MfC—Manter fine sandy loam, 2 to 6 percent slopes**Map Unit Composition**

Holt Variant: 100 percent

Component Descriptions**Holt Variant***MLRA:* 66 - Dakota-Nebraska Eroded Tableland*Landform:* Hill on tableland*Hillslope position:* Backslope, shoulder, summit*Parent material:* Calcareous sandy eolian deposits and/or calcareous loamy eolian deposits and/or

calcareous loamy residuum weathered from sandstone, calcareous loamy residuum weathered from sandstone

Slope: 2 to 6 percent*Depth to restrictive feature:* 40 to 60 inches to bedrock (paralithic)*Drainage class:* Well drained*Slowest permeability:* Moderately rapid (About 1.98 in/hr)*Available water capacity:* Moderate (About 6.5 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Very low*Ecological site:* Sandy - Veg. Zone 3*Land capability (irrigated):* 3e*Land capability (nonirrigated):* 3e

Typical Profile:

H1—0 to 10 inches; fine sandy loam
 H2—10 to 48 inches; fine sandy loam
 Cr—48 to 60 inches; weathered bedrock

MkG—Mariaville-Keota silt loams, 15 to 60 percent slopes

Map Unit Composition

Mariaville: 60 percent
 Keota: 40 percent

*Component Descriptions**Mariaville*

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Valley side on valley

Hillslope position: Shoulder, summit

Parent material: Residuum weathered from siltstone

Slope: 15 to 60 percent

Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: Low (About 3.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very high

Ecological site: Shallow Limy - Veg. Zone 3

Land capability (nonirrigated): 7s

Typical Profile:

H1—0 to 4 inches; silt loam
 H2—4 to 16 inches; silt loam
 Cr—16 to 60 inches; weathered bedrock

Keota

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Valley side on valley

Hillslope position: Backslope

Parent material: Calcareous loamy residuum weathered from siltstone

Slope: 15 to 40 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderate (About 0.60 in/hr)

Available water capacity: Low (About 4.6 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very high

Ecological site: Limy Upland - Veg. Zone 3

Land capability (nonirrigated): 7e

Typical Profile:

H1—0 to 5 inches; silt loam
 H2—5 to 36 inches; silt loam
 CR—36 to 60 inches; unweathered bedrock

Minor Components**Albaton****Albaton**

Slope: 0 to 2 percent

Drainage class: Poorly drained

Ecological site: Clayey Overflow - Veg. Zone 3

Mm—Marlake loamy fine sand, 0 to 1 percent slopes

Map Unit Composition

Marlake: 100 percent

*Component Descriptions**Marlake*

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Depression on interdune on sandhills

Parent material: Sandy eolian deposits over alluvium

Slope: 0 to 1 percent

Drainage class: Very poorly drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 4.9 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Ponding hazard: Frequent

Depth to seasonal water saturation: About 0 to 0 inches

Runoff class: Negligible

Land capability (nonirrigated): 8w

Typical Profile:

H1—0 to 8 inches; loamy fine sand
 H2—8 to 36 inches; fine sand
 H3—36 to 60 inches; fine sand

MnF—Meadin gravelly sandy loam, 3 to 30 percent slopes

Map Unit Composition

Meadin: 100 percent

Component Descriptions

Meadin

MLRA: 66 - Dakota-Nebraska Eroded Tableland*Landform:* Hill on tableland, valley side on valley*Hillslope position:* Backslope, shoulder, summit*Parent material:* Loamy alluvium over sandy and gravelly alluvium*Slope:* 3 to 30 percent*Drainage class:* Excessively drained*Slowest permeability:* Moderately rapid (About 2.00 in/hr)*Available water capacity:* Low (About 4.3 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Low*Ecological site:* Shallow To Gravel - Veg. Zone 3*Land capability (nonirrigated):* 6s*Typical Profile:*

H1—0 to 7 inches; gravelly sandy loam

H2—7 to 11 inches; gravelly loamy sand

H3—11 to 60 inches; gravelly sand

Mu—Munjor fine sandy loam, 0 to 2 percent slopes

Map Unit Composition

Munjor: 100 percent

Component Descriptions

Munjor

MLRA: 66 - Dakota-Nebraska Eroded Tableland*Landform:* Flood plain on valley*Parent material:* Loamy alluvium*Slope:* 0 to 2 percent*Drainage class:* Well drained*Slowest permeability:* Moderately rapid (About 2.00 in/hr)*Available water capacity:* Moderate (About 7.6 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* Rare*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Very low*Ecological site:* Sandy Lowland - Veg. Zone 3*Land capability (irrigated):* 2e*Land capability (nonirrigated):* 2e*Typical Profile:*

H1—0 to 6 inches; fine sandy loam

H2—6 to 36 inches; stratified fine sandy loam to loam

H3—36 to 60 inches; loamy fine sand

Minor Components**Barney***Slope:* 0 to 2 percent*Drainage class:* Very poorly drained*Ecological site:* Wet Land - Veg. Zone 3**OaB—O'Neill loamy fine sand, 0 to 3 percent slopes**

Map Unit Composition

O'Neill: 100 percent

Component Descriptions

O'Neill

MLRA: 66 - Dakota-Nebraska Eroded Tableland*Landform:* Flat on tableland, knoll on tableland*Hillslope position:* Shoulder, summit, backslope*Parent material:* Coarse-loamy alluvium over sandy and gravelly alluvium*Slope:* 0 to 3 percent*Drainage class:* Well drained*Slowest permeability:* Moderately rapid (About 2.00 in/hr)*Available water capacity:* Low (About 4.6 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Very low*Ecological site:* Sandy - Veg. Zone 3*Land capability (irrigated):* 3e*Land capability (nonirrigated):* 4e*Typical Profile:*

H1—0 to 7 inches; loamy fine sand

H2—7 to 30 inches; sandy loam
H3—30 to 60 inches; sand

Oe—O'Neill fine sandy loam, 0 to 2 percent slopes

Map Unit Composition

O'Neill: 100 percent

Component Descriptions

O'Neill

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Flat on tableland, stream terrace on valley

Parent material: Coarse-loamy alluvium over sandy and gravelly alluvium

Slope: 0 to 2 percent

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Low (About 4.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 3e

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 6 inches; fine sandy loam

H2—6 to 24 inches; sandy loam

H3—24 to 60 inches; gravelly sand

Minor Components

Perched Wt

OeC—O'Neill fine sandy loam, 2 to 6 percent slopes

Map Unit Composition

O'Neill: 100 percent

Component Descriptions

O'Neill

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland

Hillslope position: Summit, backslope, shoulder

Parent material: Coarse-loamy alluvium over sandy and gravelly alluvium

Slope: 2 to 6 percent

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 1.98 in/hr)

Available water capacity: Low (About 4.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 4e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 6 inches; fine sandy loam

H2—6 to 24 inches; fine sandy loam

H3—24 to 60 inches; gravelly sand

Minor Components

Perched Wt

OeD—O'Neill fine sandy loam, 6 to 9 percent slopes

Map Unit Composition

O'Neill: 100 percent

Component Descriptions

O'Neill

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland

Hillslope position: Summit, backslope, shoulder

Parent material: Coarse-loamy alluvium over sandy and gravelly alluvium

Slope: 6 to 9 percent

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 1.98 in/hr)

Available water capacity: Low (About 4.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 4e

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 6 inches; fine sandy loam
H2—6 to 24 inches; sandy loam
H3—24 to 60 inches; gravelly sand

OhB—O'Neill-Meadin fine sandy loams, 0 to 3 percent slopes

Map Unit Composition

O'Neill: 60 percent
Meadin: 40 percent

Component Descriptions

O'Neill

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Knoll on tableland

Parent material: Coarse-loamy alluvium over sandy and gravelly alluvium

Slope: 0 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 1.98 in/hr)

Available water capacity: Low (About 4.4 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 3e

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 7 inches; fine sandy loam
H2—7 to 26 inches; sandy loam
H3—26 to 60 inches; coarse sand

Meadin

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Swale on tableland

Parent material: Loamy alluvium over sandy and gravelly alluvium

Slope: 0 to 3 percent

Drainage class: Excessively drained

Slowest permeability: Moderately rapid (About 1.98 in/hr)

Available water capacity: Low (About 3.5 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Shallow To Gravel - Veg. Zone 3

Land capability (irrigated): 4s

Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 7 inches; fine sandy loam
H2—7 to 12 inches; sandy loam
H3—12 to 60 inches; very gravelly coarse sand

OkD—O'Neill-Valentine complex, 1 to 9 percent slopes

Map Unit Composition

O'Neill: 60 percent
Valentine: 40 percent

Component Descriptions

O'Neill

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland

Hillslope position: Footslope, backslope

Parent material: Coarse-loamy alluvium over sandy and gravelly alluvium

Slope: 1 to 2 percent

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 1.98 in/hr)

Available water capacity: Low (About 3.9 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 3e

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 6 inches; sandy loam
H2—6 to 21 inches; sandy loam
H3—21 to 60 inches; coarse sand

Valentine

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Dune on tableland

Parent material: Eolian sands

Slope: 3 to 9 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Low (About 4.0 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very low
Ecological site: Sands - Veg. Zone 3
Land capability (irrigated): 4e
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 5 inches; fine sand
 H2—5 to 13 inches; fine sand
 H3—13 to 60 inches; fine sand

On—Onita silt loam, 0 to 1 percent slopes

Map Unit Composition

Onita: 100 percent

Component Descriptions

Onita

MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Swale on tableland, flat on tableland
Parent material: Loamy colluvium
Slope: 0 to 1 percent
Drainage class: Well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: High (About 10.6 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 12 to 48 inches
Runoff class: Negligible
Ecological site: Silty - Veg. Zone 3
Land capability (irrigated): 1
Land capability (nonirrigated): 2c

Typical Profile:

H1—0 to 16 inches; silt loam
 H2—16 to 36 inches; silty clay loam
 H3—36 to 60 inches; silt loam

Minor Components

Perched Wt

Or—Ord-Loup fine sandy loams, 0 to 2 percent slopes

Map Unit Composition

Ord: 70 percent
 Loup: 30 percent

Component Descriptions

Ord

MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Flat on interdune on sandhills, stream terrace on valley
Parent material: Stratified sandy alluvium
Slope: 0 to 2 percent
Drainage class: Somewhat poorly drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 7.4 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 18 to 36 inches
Runoff class: Very low
Ecological site: Subirrigated - Veg. Zone 3
Land capability (irrigated): 2w
Land capability (nonirrigated): 2w

Typical Profile:

H1—0 to 24 inches; fine sandy loam
 H2—24 to 36 inches; fine sandy loam
 H3—36 to 60 inches; fine sand

Loup

MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Swale on interdune on sandhills, stream terrace on valley
Parent material: Sandy alluvium
Slope: 0 to 2 percent
Drainage class: Poorly drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Low (About 5.6 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 0 to 18 inches
Runoff class: Very low
Ecological site: Wet Subirrigated - Veg. Zone 3
Land capability (nonirrigated): 5w

Typical Profile:

H1—0 to 14 inches; fine sandy loam
 H2—14 to 60 inches; fine sand

Pf—Paka fine sandy loam, 0 to 2 percent slopes

Map Unit Composition

Paka: 100 percent

Component Descriptions

Paka

MLRA: 66 - Dakota-Nebraska Eroded Tableland*Landform:* Flat on tableland*Parent material:* Loamy residuum weathered from siltstone*Slope:* 0 to 2 percent*Depth to restrictive feature:* 40 to 60 inches to bedrock (paralithic)*Drainage class:* Well drained*Slowest permeability:* Moderately slow (About 0.20 in/hr)*Available water capacity:* Moderate (About 6.9 inches)*Shrink-swell potential:* Moderate (About 4.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Medium*Ecological site:* Silty - Veg. Zone 3*Land capability (irrigated):* 2e*Land capability (nonirrigated):* 2e*Typical Profile:*

H1—0 to 24 inches; fine sandy loam

H2—24 to 40 inches; silty clay loam

Cr—40 to 60 inches; weathered bedrock

Minor Components**Loup***Slope:* 0 to 2 percent*Drainage class:* Poorly drained*Ecological site:* Wet Subirrigated - Veg. Zone 3**Ph—Paka loam, 0 to 1 percent slopes**

Map Unit Composition

Paka: 100 percent

Component Descriptions

Paka

MLRA: 66 - Dakota-Nebraska Eroded Tableland*Landform:* Flat on tableland*Parent material:* Loamy residuum weathered from siltstone*Slope:* 0 to 1 percent*Depth to restrictive feature:* 40 to 60 inches to bedrock (paralithic)*Drainage class:* Well drained*Slowest permeability:* Moderately slow (About 0.20 in/hr)*Available water capacity:* Moderate (About 8.4 inches)*Shrink-swell potential:* Moderate (About 4.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Low*Ecological site:* Silty - Veg. Zone 3*Land capability (irrigated):* 1*Land capability (nonirrigated):* 2c*Typical Profile:*

H1—0 to 14 inches; loam

H2—14 to 25 inches; silty clay loam

H3—25 to 41 inches; silt loam

Cr—41 to 60 inches; weathered bedrock

Minor Components**Perched Wt****PhB—Paka loam, 1 to 3 percent slopes**

Map Unit Composition

Paka: 100 percent

Perched Wt:

Component Descriptions

Paka

MLRA: 66 - Dakota-Nebraska Eroded Tableland*Landform:* Hill on tableland*Hillslope position:* Backslope, shoulder, summit*Parent material:* Loamy residuum weathered from siltstone*Slope:* 1 to 3 percent*Depth to restrictive feature:* 40 to 60 inches to bedrock (paralithic)

Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Moderate (About 8.4 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Silty - Veg. Zone 3
Land capability (irrigated): 2e
Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 14 inches; loam
 H2—14 to 25 inches; silty clay loam
 H3—25 to 41 inches; silt loam
 Cr—41 to 60 inches; weathered bedrock

Perched Wt

MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Playa
Depth to seasonal water saturation: More than 6 feet

Typical Profile:

PmC—Paka-Mariaville loams, 3 to 6 percent slopes

Map Unit Composition

Paka: 60 percent
 Mariaville: 40 percent

Component Descriptions

Paka

MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Hill on tableland
Hillslope position: Footslope, backslope
Parent material: Loamy residuum weathered from siltstone
Slope: 3 to 6 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Moderate (About 8.4 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Silty - Veg. Zone 3
Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 14 inches; loam
 H2—14 to 25 inches; silty clay loam
 H3—25 to 41 inches; silt loam
 Cr—41 to 60 inches; weathered bedrock

Mariaville

MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Hill on tableland
Hillslope position: Summit, shoulder
Parent material: Residuum weathered from siltstone
Slope: 3 to 6 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 3.0 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Shallow Limy - Veg. Zone 3
Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 4 inches; loam
 H2—4 to 16 inches; silt loam
 Cr—16 to 60 inches; weathered bedrock

PmF—Paka-Mariaville loams, 11 to 30 percent slopes

Map Unit Composition

Paka: 55 percent
 Mariaville: 45 percent

Component Descriptions

Paka

MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Hill on tableland, valley side on valley

Hillslope position: Backslope

Parent material: Loamy residuum weathered from siltstone

Slope: 11 to 30 percent

Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: Moderate (About 8.4 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very high

Ecological site: Silty - Veg. Zone 3

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 14 inches; loam

H2—14 to 25 inches; silty clay loam

H3—25 to 41 inches; silt loam

Cr—41 to 60 inches; weathered bedrock

Mariaville

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland, valley side on valley

Hillslope position: Summit, shoulder

Parent material: Residuum weathered from siltstone

Slope: 11 to 30 percent

Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: Low (About 3.0 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very high

Ecological site: Shallow Limy - Veg. Zone 3

Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 4 inches; loam

H2—4 to 16 inches; silt loam

Cr—16 to 60 inches; weathered bedrock

Minor Components

Wt At 0-1 Foot

RaB—Ree loam, 1 to 3 percent slopes

Map Unit Composition

Ree: 100 percent

Component Descriptions

Ree

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland

Parent material: Loamy alluvial sediments

Slope: 1 to 3 percent

Drainage class: Well drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: High (About 11.6 inches)

Shrink-swell potential: Moderate (About 4.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Silty - Veg. Zone 3

Land capability (irrigated): 2e

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 13 inches; loam

H2—13 to 54 inches; clay loam

H3—54 to 60 inches; loamy sand

Minor Components

Perched Wt

Rb—Ree loam, Clayey Substratum, 0 to 2 percent slopes

Map Unit Composition

Ree: 100 percent

Component Descriptions

Ree

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Flat on tableland

Parent material: Loamy alluvial sediments

Slope: 0 to 2 percent

Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 8.3 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Silty - Veg. Zone 3
Land capability (irrigated): 1
Land capability (nonirrigated): 2c

Typical Profile:

H1—0 to 14 inches; loam
H2—14 to 25 inches; loam
H3—25 to 40 inches; sandy clay loam
H4—40 to 54 inches; clay
Cr—54 to 60 inches; weathered bedrock

ReC—Reliance silt loam, 2 to 6 percent slopes

Map Unit Composition

Reliance: 100 percent

Component Descriptions

Reliance
MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Loess hill on tableland
Hillslope position: Backslope, shoulder, summit
Parent material: Loess
Slope: 2 to 6 percent
Drainage class: Well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Moderate (About 8.4 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Silty - Veg. Zone 3
Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 11 inches; silt loam
H2—11 to 37 inches; silty clay loam
H3—37 to 48 inches; silt loam
H4—48 to 60 inches; gravelly sand

RoD—Ronson-Anselmo fine sandy loams, 6 to 9 percent slopes

Map Unit Composition

Ronson: 55 percent
Anselmo: 45 percent

Component Descriptions

Ronson
MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Hill on tableland
Hillslope position: Shoulder, summit
Parent material: Residuum weathered from calcareous sandstone
Slope: 6 to 9 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Low (About 3.3 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Medium
Ecological site: Sandy - Veg. Zone 3
Land capability (irrigated): 4e
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 13 inches; fine sandy loam
H2—13 to 25 inches; fine sandy loam
Cr—25 to 60 inches; weathered bedrock

Anselmo

MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Hill on tableland
Hillslope position: Backslope
Parent material: Loamy eolian deposits
Slope: 6 to 9 percent
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 1.98 in/hr)
Available water capacity: Moderate (About 8.9 inches)
Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sandy - Veg. Zone 3
Land capability (irrigated): 4e
Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 6 inches; fine sandy loam
 H2—6 to 22 inches; fine sandy loam
 H3—22 to 60 inches; fine sandy loam

RoF—Ronson-Anselmo fine sandy loams, 9 to 30 percent slopes

Map Unit Composition

Ronson: 55 percent
 Anselmo: 45 percent

Component Descriptions

Ronson

MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Hill on tableland, valley side on valley
Hillslope position: Shoulder, summit
Parent material: Residuum weathered from calcareous sandstone
Slope: 9 to 30 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Low (About 3.3 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Sandy - Veg. Zone 3
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 13 inches; fine sandy loam
 H2—13 to 25 inches; fine sandy loam
 Cr—25 to 60 inches; weathered bedrock

Anselmo

MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Hill on tableland, valley side on valley
Hillslope position: Backslope
Parent material: Loamy eolian deposits

Slope: 9 to 17 percent
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Moderate (About 8.9 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sandy - Veg. Zone 3
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 6 inches; fine sandy loam
 H2—6 to 22 inches; fine sandy loam
 H3—22 to 60 inches; fine sandy loam

RtB—Ronson-Tassel fine sandy loams, 0 to 3 percent slopes

Map Unit Composition

Ronson: 55 percent
 Longpine: 45 percent

Component Descriptions

Ronson

MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Swale on tableland
Parent material: Residuum weathered from calcareous sandstone
Slope: 0 to 3 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Low (About 3.3 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sandy - Veg. Zone 3
Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 13 inches; fine sandy loam
 H2—13 to 25 inches; fine sandy loam
 Cr—25 to 60 inches; weathered bedrock

Longpine*MLRA:* 66 - Dakota-Nebraska Eroded Tableland*Landform:* Knoll on tableland*Parent material:* Calcareous loamy residuum weathered from sandstone*Slope:* 0 to 3 percent*Depth to restrictive feature:* 10 to 20 inches to bedrock (paralithic)*Drainage class:* Well drained*Slowest permeability:* Moderately rapid (About 2.00 in/hr)*Available water capacity:* Very low (About 2.0 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Low*Ecological site:* Shallow Limy - Veg. Zone 3*Land capability (nonirrigated):* 6s*Typical Profile:*

H1—0 to 7 inches; fine sandy loam

H2—7 to 17 inches; gravelly fine sandy loam

Cr—17 to 60 inches; unweathered bedrock

Minor Components**Perched Wt****SaG—Sansarc silty clay, 20 to 40 percent slopes***Map Unit Composition*

Sansarc: 100 percent

*Component Descriptions***Sansarc***MLRA:* 66 - Dakota-Nebraska Eroded Tableland*Landform:* Hill on hills, valley side on valley*Hillslope position:* Shoulder, summit, backslope*Parent material:* Clayey residuum weathered from shale*Slope:* 30 to 40 percent*Depth to restrictive feature:* 4 to 20 inches to bedrock (paralithic)*Drainage class:* Well drained*Slowest permeability:* Very slow (About 0.01 in/hr)*Available water capacity:* Very low (About 1.1 inches)*Shrink-swell potential:* Very high (About 17.0 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Very high*Ecological site:* Shallow Clay - Veg. Zone 3*Land capability (nonirrigated):* 7e*Typical Profile:*

H1—0 to 4 inches; silty clay

H2—4 to 12 inches; clay

Cr—14 to 60 inches; weathered bedrock

ScF—Schamber gravelly sandy loam, 11 to 30 percent slopes*Map Unit Composition*

Schamber: 100 percent

*Component Descriptions***Schamber***MLRA:* 66 - Dakota-Nebraska Eroded Tableland*Landform:* Valley side on valley, hill on tableland*Hillslope position:* Shoulder, backslope, summit*Parent material:* Sandy and gravelly outwash*Slope:* 11 to 30 percent*Drainage class:* Excessively drained*Slowest permeability:* Moderately rapid (About 1.98 in/hr)*Available water capacity:* Very low (About 3.0 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Medium*Ecological site:* Shallow To Gravel - Veg. Zone 3*Land capability (nonirrigated):* 6s*Typical Profile:*

H1—0 to 4 inches; gravelly sandy loam

H2—4 to 60 inches; very gravelly sand

SmF—Simeon-Manter-Ronson complex, 6 to 17 percent slopes*Map Unit Composition*

Simeon: 40 percent
Holt Variant: 35 percent
Ronson: 25 percent

Component Descriptions

Simeon

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland, valley side on valley

Hillslope position: Shoulder, summit

Parent material: Sandy and gravelly alluvium

Slope: 6 to 17 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 5.1 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Shallow To Gravel - Veg. Zone 3

Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 12 inches; loamy sand

H2—12 to 60 inches; loamy fine sand

Holt Variant

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland, valley side on valley

Hillslope position: Backslope

Parent material: Calcareous loamy residuum weathered from sandstone

Slope: 6 to 9 percent

Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 1.98 in/hr)

Available water capacity: Low (About 3.2 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 4e

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 11 inches; loamy fine sand

H2—11 to 26 inches; fine sandy loam

Cr—26 to 60 inches; weathered bedrock

Ronson

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland, valley side on valley

Hillslope position: Backslope, shoulder

Parent material: Residuum weathered from calcareous sandstone

Slope: 6 to 17 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Very low (About 2.9 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Medium

Ecological site: Sandy - Veg. Zone 3

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 13 inches; loamy fine sand

H2—13 to 25 inches; fine sandy loam

Cr—25 to 60 inches; weathered bedrock

Minor Components

Perched Wt

SvF2—Simeon-Valentine fine sands, 6 to 17 percent slopes, Eroded

Map Unit Composition

Simeon: 60 percent

Valentine: 40 percent

Component Descriptions

Simeon

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland, valley side on valley

Hillslope position: Shoulder, summit

Parent material: Sandy and gravelly alluvium

Slope: 6 to 17 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 4.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Shallow To Gravel - Veg. Zone 3

Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 8 inches; fine sand
H2—8 to 60 inches; sand

Valentine

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Valley side on valley, hill on tableland

Hillslope position: Backslope

Parent material: Eolian sands

Slope: 6 to 17 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 3.7 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sands - Veg. Zone 3

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 7 inches; fine sand
H2—7 to 60 inches; fine sand

SwB—Simeon-Valentine loamy sands, 0 to 3 percent slopes

Map Unit Composition

Simeon: 65 percent

Valentine: 35 percent

Component Descriptions

Simeon

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Swale on tableland, stream terrace on valley

Parent material: Sandy and gravelly alluvium

Slope: 0 to 3 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 5.3 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Negligible

Ecological site: Shallow To Gravel - Veg. Zone 3

Land capability (irrigated): 4s

Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 18 inches; loamy sand
H2—18 to 60 inches; sand

Valentine

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Stream terrace on valley, hummock on tableland

Parent material: Eolian sands

Slope: 0 to 3 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 3.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Negligible

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 4e

Land capability (nonirrigated): 4e

Typical Profile:

H1—0 to 6 inches; loamy sand
H2—6 to 60 inches; fine sand

Minor Components

Wt At 0-1 Foot

TaF—Tassel loamy fine sand, 3 to 30 percent slopes

Map Unit Composition

Longpine: 100 percent

Component Descriptions

Longpine

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Valley side on valley, butte on tableland

Hillslope position: Shoulder, summit

Parent material: Calcareous loamy residuum weathered from sandstone

Slope: 3 to 30 percent

Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Very low (About 1.4 inches)

Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Shallow Limy - Veg. Zone 3
Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 5 inches; loamy fine sand
H2—5 to 13 inches; gravelly fine sandy loam
Cr—13 to 60 inches; unweathered bedrock

TdE—Tassel-Duda complex, 3 to 15 percent slopes

Map Unit Composition

Longpine: 60 percent
Duda: 40 percent
Wt At 0-1 Foot:

Component Descriptions

Longpine
MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Hill on tableland, valley side on valley
Hillslope position: Shoulder, summit
Parent material: Calcareous loamy residuum weathered from sandstone
Slope: 3 to 15 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Very low (About 1.4 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Shallow Limy - Veg. Zone 3
Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 4 inches; fine sandy loam
H2—4 to 11 inches; gravelly fine sandy loam
Cr—11 to 60 inches; unweathered bedrock

Duda

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland, swale on tableland, valley side on valley
Hillslope position: Backslope
Parent material: Sandy eolian deposits derived from sandstone
Slope: 6 to 15 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Very low (About 2.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Sandy - Veg. Zone 3
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 6 inches; loamy fine sand
H2—6 to 39 inches; fine sand
Cr—39 to 60 inches; weathered bedrock

Wt At 0-1 Foot

MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Swale
Depth to seasonal water saturation: More than 6 feet

Typical Profile:

TrG—Tassel-Ronson-Duda complex, 15 to 70 percent slopes

Map Unit Composition

Longpine: 40 percent
Ronson: 35 percent
Duda: 25 percent

Component Descriptions

Longpine
MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Valley side on valley
Hillslope position: Shoulder
Parent material: Calcareous loamy residuum weathered from sandstone
Slope: 30 to 70 percent
Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)

Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Very low (About 1.5 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Shallow Limy - Veg. Zone 3
Land capability (nonirrigated): 7s

Typical Profile:
 H1—0 to 4 inches; loamy fine sand
 H2—4 to 18 inches; fine sand
 Cr—18 to 60 inches; unweathered bedrock

Ronson
MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Valley side on valley
Hillslope position: Backslope
Parent material: Residuum weathered from calcareous sandstone
Slope: 15 to 30 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately rapid (About 2.00 in/hr)
Available water capacity: Low (About 3.8 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Sandy - Veg. Zone 3
Land capability (nonirrigated): 6e

Typical Profile:
 H1—0 to 9 inches; fine sandy loam
 H2—9 to 35 inches; fine sandy loam
 Cr—35 to 60 inches; weathered bedrock

Duda
MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Valley side on valley
Hillslope position: Backslope
Parent material: Sandy eolian deposits derived from sandstone
Slope: 15 to 30 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Somewhat excessively drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Low (About 3.3 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet
Runoff class: High
Ecological site: Savannah - Veg. Zone 3
Land capability (nonirrigated): 6e

Typical Profile:
 H1—0 to 14 inches; sandy loam
 H2—14 to 36 inches; fine sand
 Cr—36 to 60 inches; weathered bedrock

Tu—Tuthill fine sandy loam, 0 to 2 percent slopes

Map Unit Composition

Hennings: 100 percent

Component Descriptions

Hennings
MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Flat on tableland
Parent material: Loamy residuum over soft calcareous sandstone
Slope: 0 to 2 percent
Depth to restrictive feature: 40 to 60 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Moderately slow (About 0.20 in/hr)
Available water capacity: Low (About 6.0 inches)
Shrink-swell potential: Moderate (About 4.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Silty - Veg. Zone 3
Land capability (irrigated): 2e
Land capability (nonirrigated): 2e

Typical Profile:
 H1—0 to 18 inches; fine sandy loam
 H2—18 to 24 inches; sandy clay loam
 H3—24 to 27 inches; fine sandy loam
 H4—27 to 48 inches; loamy fine sand
 Cr—48 to 60 inches; weathered bedrock

Minor Components **Perched Wt**

VaF—Valentine fine sand, Rolling

Map Unit Composition

Valentine: 100 percent

Component Descriptions

Valentine

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Dune on sandhills

Parent material: Eolian sands

Slope: 9 to 24 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 3.7 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sands - Veg. Zone 3

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 7 inches; fine sand

H2—7 to 60 inches; fine sand

VaG—Valentine fine sand, Hilly

Map Unit Composition

Valentine: 100 percent

Component Descriptions

Valentine

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Dune on sandhills

Parent material: Eolian sands

Slope: 24 to 60 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 3.6 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Low

Ecological site: Choppy Sands - Veg. Zone 3

Land capability (nonirrigated): 7e

Typical Profile:

H1—0 to 4 inches; fine sand

H2—4 to 60 inches; fine sand

VbD—Valentine loamy fine sand, Gently Rolling

Map Unit Composition

Valentine: 100 percent

Component Descriptions

Valentine

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Dune on tableland

Parent material: Eolian sands

Slope: 3 to 9 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 3.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sands - Veg. Zone 3

Land capability (irrigated): 4e

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 5 inches; loamy fine sand

H2—5 to 60 inches; fine sand

Minor Components

Wt At 0-1 Foot

VcF—Valentine-Tassel complex, Rolling

Map Unit Composition

Valentine: 75 percent

Longpine: 25 percent

Component Descriptions

Valentine

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Dune on upland, valley side on valley

Parent material: Eolian sands

Slope: 6 to 17 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 3.7 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sands - Veg. Zone 3

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 9 inches; fine sand

H2—9 to 60 inches; fine sand

Longpine

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Hill on tableland, swale on tableland, valley side on valley

Hillslope position: Shoulder, summit

Parent material: Calcareous loamy residuum weathered from sandstone

Slope: 6 to 17 percent

Depth to restrictive feature: 10 to 20 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Moderately rapid (About 2.00 in/hr)

Available water capacity: Very low (About 1.9 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: High

Ecological site: Shallow Limy - Veg. Zone 3

Land capability (nonirrigated): 6s

Typical Profile:

H1—0 to 8 inches; fine sandy loam

H2—8 to 13 inches; gravelly fine sandy loam

Cr—13 to 60 inches; unweathered bedrock

VdC—Valentine-Wewela loamy fine sands, 3 to 6 percent slopes

Map Unit Composition

Valentine: 40 percent

Valentine: 30 percent

Wewela: 30 percent

Component Descriptions

Valentine

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Dune on plains

Parent material: Eolian sands

Slope: 3 to 6 percent

Drainage class: Excessively drained

Slowest permeability: Rapid (About 5.95 in/hr)

Available water capacity: Low (About 3.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very low

Ecological site: Sands - Veg. Zone 3

Land capability (irrigated): 4e

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 5 inches; loamy fine sand

H2—5 to 60 inches; fine sand

Valentine

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Dune on plains

Parent material: Eolian sands

Slope: 3 to 6 percent

Drainage class: Excessively drained

Slowest permeability: Moderately slow (About 0.20 in/hr)

Available water capacity: Low (About 5.8 inches)

Shrink-swell potential: Low (About 1.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: About 36 to 60 inches

Runoff class: Very low

Ecological site: Sandy - Veg. Zone 3

Land capability (irrigated): 4e

Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 5 inches; loamy fine sand

H2—5 to 40 inches; fine sand

Cr—40 to 60 inches; channery clay

Wewela

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Swale on plains, knoll on plains

Parent material: Loamy eolian deposits over clayey residuum weathered from clayey shale

Slope: 4 to 6 percent

Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)

Drainage class: Well drained

Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Low (About 3.7 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Sandy - Veg. Zone 3
Land capability (irrigated): 4e
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 7 inches; loamy fine sand
H2—7 to 22 inches; clay loam
H3—22 to 26 inches; clay
Cr—26 to 60 inches; weathered bedrock

Minor Components
Wt At 0-1 Foot

VdF—Valentine-Wewela loamy fine sands, 6 to 30 percent slopes

Map Unit Composition

Valentine: 40 percent
Valentine: 30 percent
Wewela: 30 percent

Component Descriptions

Valentine
MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Valley side on valley
Hillslope position: Backslope
Parent material: Eolian sands
Slope: 6 to 30 percent
Drainage class: Excessively drained
Slowest permeability: Rapid (About 5.95 in/hr)
Available water capacity: Low (About 3.4 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Low
Ecological site: Sands - Veg. Zone 3
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 8 inches; loamy fine sand
H2—17 to 60 inches; fine sand

Valentine

MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Valley side on valley
Hillslope position: Summit, shoulder
Parent material: Eolian sands
Slope: 6 to 30 percent
Drainage class: Excessively drained
Slowest permeability: Slow (About 0.06 in/hr)
Available water capacity: Low (About 5.9 inches)
Shrink-swell potential: Low (About 1.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: About 36 to 60 inches
Runoff class: Low
Ecological site: Sandy - Veg. Zone 3
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 9 inches; loamy fine sand
H2—9 to 40 inches; fine sand
Cr—40 to 60 inches;

Wewela

MLRA: 66 - Dakota-Nebraska Eroded Tableland
Landform: Valley side on valley
Hillslope position: Shoulder, backslope, summit
Parent material: Loamy eolian deposits over clayey residuum weathered from clayey shale
Slope: 6 to 9 percent
Depth to restrictive feature: 20 to 40 inches to bedrock (paralithic)
Drainage class: Well drained
Slowest permeability: Very slow (About 0.00 in/hr)
Available water capacity: Low (About 3.5 inches)
Shrink-swell potential: High (About 7.5 LEP)
Flooding hazard: None
Depth to seasonal water saturation: More than 6 feet
Runoff class: Very high
Ecological site: Sandy - Veg. Zone 3
Land capability (irrigated): 4e
Land capability (nonirrigated): 6e

Typical Profile:

H1—0 to 18 inches; loamy fine sand
H2—18 to 23 inches; sandy clay loam
H3—23 to 40 inches; clay
Cr—40 to 60 inches; weathered bedrock

Minor Components
Wt At 0-1 Foot

Ve—Verdel silty clay loam, 0 to 1 percent slopes

Map Unit Composition

Verdel: 100 percent

Component Descriptions

Verdel

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Stream terrace on valley

Parent material: Clayey alluvium derived from shale

Slope: 0 to 1 percent

Drainage class: Well drained

Slowest permeability: Very slow (About 0.00 in/hr)

Available water capacity: Moderate (About 8.9 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very high

Ecological site: Clayey - Veg. Zone 3

Land capability (irrigated): 2s

Land capability (nonirrigated): 2s

Typical Profile:

H1—0 to 18 inches; silty clay loam

H2—18 to 60 inches; silty clay

VeB—Verdel silty clay loam, 1 to 3 percent slopes**Map Unit Composition**

Verdel: 100 percent

Component Descriptions

Verdel

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Stream terrace on valley

Parent material: Clayey alluvium derived from shale

Slope: 1 to 3 percent

Drainage class: Well drained

Slowest permeability: Very slow (About 0.00 in/hr)

Available water capacity: Moderate (About 8.9 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very high

Ecological site: Clayey - Veg. Zone 3

Land capability (irrigated): 2e

Land capability (nonirrigated): 2e

Typical Profile:

H1—0 to 18 inches; silty clay loam

H2—18 to 60 inches; silty clay

VeC—Verdel silty clay loam, 3 to 6 percent slopes**Map Unit Composition**

Verdel: 100 percent

Component Descriptions

Verdel

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Landform: Stream terrace on valley

Parent material: Clayey alluvium derived from shale

Slope: 3 to 6 percent

Drainage class: Well drained

Slowest permeability: Very slow (About 0.00 in/hr)

Available water capacity: Moderate (About 8.9 inches)

Shrink-swell potential: High (About 7.5 LEP)

Flooding hazard: None

Depth to seasonal water saturation: More than 6 feet

Runoff class: Very high

Ecological site: Clayey - Veg. Zone 3

Land capability (irrigated): 3e

Land capability (nonirrigated): 3e

Typical Profile:

H1—0 to 18 inches; silty clay loam

H2—18 to 60 inches; silty clay

Vo—Vetal fine sandy loam, 0 to 2 percent slopes**Map Unit Composition**

Vetal: 100 percent

Component Descriptions**Vetal***MLRA:* 66 - Dakota-Nebraska Eroded Tableland*Landform:* Swale on upland, stream terrace on valley*Parent material:* Loamy alluvium over eolian deposits*Slope:* 0 to 2 percent*Drainage class:* Well drained*Slowest permeability:* Moderately rapid (About 2.00 in/hr)*Available water capacity:* Moderate (About 8.3 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Very low*Ecological site:* Sandy - Veg. Zone 3*Land capability (irrigated):* 2e*Land capability (nonirrigated):* 2e*Typical Profile:*

H1—0 to 36 inches; fine sandy loam

H2—36 to 50 inches; fine sandy loam

H3—50 to 60 inches; loamy fine sand

Minor Components**Perched Wt****Vt—Vetal loam, 0 to 1 percent slopes****Map Unit Composition**

Vetal: 100 percent

Component Descriptions**Vetal***MLRA:* 66 - Dakota-Nebraska Eroded Tableland*Landform:* Swale on upland, stream terrace on valley*Parent material:* Loamy alluvium over eolian deposits*Slope:* 0 to 1 percent*Drainage class:* Well drained*Slowest permeability:* Moderately rapid (About 2.00 in/hr)*Available water capacity:* High (About 10.0 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Negligible*Ecological site:* Silty - Veg. Zone 3*Land capability (irrigated):* 1*Land capability (nonirrigated):* 2c*Typical Profile:*

H1—0 to 34 inches; loam

H2—34 to 54 inches; loam

H3—54 to 60 inches; loamy fine sand

Minor Components**Perched Wt****VtB—Vetal loam, 1 to 3 percent slopes****Map Unit Composition**

Vetal: 100 percent

Component Descriptions**Vetal***MLRA:* 66 - Dakota-Nebraska Eroded Tableland*Landform:* Hill on tableland, stream terrace on valley*Hillslope position:* Footslope*Parent material:* Loamy alluvium over eolian deposits*Slope:* 1 to 3 percent*Drainage class:* Well drained*Slowest permeability:* Moderately rapid (About 2.00 in/hr)*Available water capacity:* High (About 10.0 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Very low*Ecological site:* Silty - Veg. Zone 3*Land capability (irrigated):* 2e*Land capability (nonirrigated):* 2e*Typical Profile:*

H1—0 to 34 inches; loam

H2—34 to 54 inches; loam

H3—54 to 60 inches; fine sandy loam

Minor Components**Perched Wt**

VtC—Vetal loam, 3 to 6 percent slopes

Map Unit Composition

Vetal: 100 percent

Component Descriptions

Vetal

MLRA: 66 - Dakota-Nebraska Eroded Tableland*Landform:* Hill on tableland*Hillslope position:* Footslope*Parent material:* Loamy alluvium over eolian deposits*Slope:* 3 to 6 percent*Drainage class:* Well drained*Slowest permeability:* Moderately rapid (About 2.00 in/hr)*Available water capacity:* High (About 10.0 inches)*Shrink-swell potential:* Low (About 1.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Very low*Ecological site:* Silty - Veg. Zone 3*Land capability (irrigated):* 3e*Land capability (nonirrigated):* 3e*Typical Profile:*

H1—0 to 34 inches; loam

H2—34 to 54 inches; loam

H3—54 to 60 inches; very fine sandy loam

WeB—Wewela fine sandy loam, 0 to 3 percent slopes

Map Unit Composition

Wewela: 100 percent

Component Descriptions

Wewela

MLRA: 66 - Dakota-Nebraska Eroded Tableland*Landform:* Knoll on plains, flat on plains*Parent material:* Loamy eolian deposits over clayey residuum weathered from clayey shale*Slope:* 0 to 2 percent*Depth to restrictive feature:* 20 to 40 inches to bedrock (paralithic)*Drainage class:* Well drained*Slowest permeability:* Very slow (About 0.00 in/hr)*Available water capacity:* Low (About 4.1 inches)*Shrink-swell potential:* High (About 7.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* High*Ecological site:* Silty - Veg. Zone 3*Land capability (irrigated):* 3e*Land capability (nonirrigated):* 3e*Typical Profile:*

H1—0 to 8 inches; fine sandy loam

H2—8 to 16 inches; sandy clay loam

H3—16 to 36 inches; clay

H4—36 to 60 inches; weathered bedrock

Minor Components**Wt At 0-1 Foot****WeC—Wewela fine sandy loam, 3 to 6 percent slopes**

Map Unit Composition

Wewela: 100 percent

Component Descriptions

Wewela

MLRA: 66 - Dakota-Nebraska Eroded Tableland*Landform:* Hill on plains*Hillslope position:* Backslope, shoulder, summit*Parent material:* Loamy eolian deposits over clayey residuum weathered from clayey shale*Slope:* 3 to 6 percent*Depth to restrictive feature:* 20 to 40 inches to bedrock (paralithic)*Drainage class:* Well drained*Slowest permeability:* Very slow (About 0.00 in/hr)*Available water capacity:* Low (About 4.1 inches)*Shrink-swell potential:* High (About 7.5 LEP)*Flooding hazard:* None*Depth to seasonal water saturation:* More than 6 feet*Runoff class:* Very high*Ecological site:* Silty - Veg. Zone 3

Land capability (irrigated): 3e
Land capability (nonirrigated): 3e

Depth to seasonal water saturation: More than 6 feet

Typical Profile:

H1—0 to 8 inches; fine sandy loam
H2—8 to 16 inches; sandy clay loam
H3—16 to 36 inches; clay
Cr—36 to 60 inches; weathered bedrock

zwb—Water < 40 Acres

Map Unit Composition

Water: 100 percent

zwa—Water > 40 Acres

Map Unit Composition

Water: 100 percent

Component Descriptions

Water

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Depth to seasonal water saturation: More than 6 feet

Component Descriptions

Water

MLRA: 66 - Dakota-Nebraska Eroded Tableland

Land capability classification shows, in a general way, the suitability of soils for most kinds of field crops. Crops that require special management are excluded. The soils are grouped according to their limitations for field crops, the risk of damage if they are used for crops, and the way they respond to management. The criteria used in grouping the soils do not include major and generally expensive land-forming that would change slope, depth, or other characteristics of the soils, nor do they include possible but unlikely major reclamation projects. Capability classification is not a substitute for interpretations designed to show suitability and limitations of groups of soils for rangeland, for forestland, or for engineering purposes. In the capability system, soils are generally grouped at three levels: capability class, subclass, and unit.

Capability classes, the broadest groups, are designated by the numbers 1 through 8. The numbers indicate progressively greater limitations and narrower choices for practical use. The classes are defined as follows:

(Class 1) soils have slight limitations that restrict their use.

(Class 2) soils have moderate limitations that restrict the choice of plants or that require moderate conservation practices.

(Class 3) soils have severe limitations that restrict the choice of plants or that require special conservation practices, or both.

(Class 4) soils have very severe limitations that restrict the choice of plants or that require very careful management, or both.

(Class 5) soils are subject to little or no erosion but have other limitations, impractical to remove, that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

(Class 6) soils have severe limitations that make them generally unsuitable for cultivation and that restrict their use mainly to pasture, rangeland, forestland, or wildlife habitat.

(Class 7) soils have very severe limitations that make them unsuitable for cultivation and that restrict their use mainly to grazing, forestland, or wildlife habitat.

(Class 8) soils and miscellaneous areas have limitations that preclude commercial plant production and that restrict their use to recreational purposes, wildlife habitat, watershed, or esthetic purposes.

Capability subclasses are soil groups within one class. They are designated by adding a small letter, e, w, s, or c, to the class numeral, for example, 2e. The letter e shows that the main hazard is the risk of erosion unless close-growing plant cover is maintained; w shows that water in or on the soil interferes with plant growth or cultivation (in some soils the wetness can be partly corrected by artificial drainage); s shows that the soil is limited mainly because it is shallow, droughty, or stony; and c, used in only some parts of the United States, shows that the chief limitation is climate that is very cold or very dry.

In class 1 there are no subclasses because the soils of this class have few limitations. Class 5 contains only the subclasses indicated by w, s, or c because the soils in class 5 are subject to little or no erosion. They have other limitations that restrict their use to pasture, rangeland, forestland, wildlife habitat, or recreation.

Capability units are soil groups within a subclass. The soils in a capability unit are enough alike to be suited to the same crops and pasture plants, to require similar management, and to have similar productivity. Capability units are generally designated by adding an Arabic numeral to the subclass symbol, for example, 2e-4 and 3e-6. These units are not given in all soil surveys.

The capability classification of map units in this survey area is given in the section "Detailed Soil Map Units" and in the Land Capability and Component Yields table.

Crop Yield Estimates

The average yields per acre that can be expected of the principal crops under a high level of management are shown in "Land Capability and Component Yields" table. In any given year, yields may be higher or lower than those indicated in the table because of variations in rainfall and other climatic factors. The land capability classification of map units in the survey area also is shown in the table.

The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations also are considered.

The management needed to obtain the indicated yields of the various crops depends on the kind of soil and the crop. Management can include drainage, erosion control, and protection from flooding; the proper planting and seeding rates; suitable high-yielding crop varieties; appropriate and timely tillage; control of weeds, plant diseases, and harmful insects; favorable soil reaction and optimum levels of nitrogen, phosphorus, potassium, and trace elements for each crop; effective use of crop residue, animal waste manure, and green manure crops; and harvesting that ensures the smallest possible loss.

For yields of irrigated crops, it is assumed that the irrigation system is adapted to the soils and to the crops grown, that good-quality irrigation water is uniformly applied as needed, and that tillage is kept to a minimum.

The estimated yields reflect the productive capacity of each soil for each of the principal crops. Yields are likely to increase as new production technology is developed. The productivity of a given soil compared with that of other soils, however, is not likely to change.

Crops other than those shown in this table, are grown in the survey area, but estimated yields are not listed because the acreage of such crops is small. The local office of the Natural Resources Conservation Service (NRCS) or the Cooperative Extension Service (CES) can provide information about the management and productivity of the soils for those crops.

LAND CAPABILITY AND YIELDS PER ACRE OF CROPS--Continued
Keya Paha County, Nebraska

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(Yields in the "N" columns are for nonirrigated soils; those in the "I" columns are for irrigated soils. Yields are those that can be expected under a high level of nonirrigated and irrigated management by component. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and soil name	Land Capability		Alfalfa hay		Corn		Winter wheat	
	N	I	N	I	N	I	N	I
			Tons		Bu		Bu	
Ab: ALBATON VARIANT-	4w	---	2.50	---	35.00	---	25.00	---
AmB: ANSELMO-----	3e	3e	1.50	4.00	28.00	115.00	15.00	---
An: ANSELMO-----	2e	2e	2.00	5.00	38.00	135.00	20.00	---
AnC: ANSELMO-----	3e	3e	1.90	4.90	35.00	130.00	18.00	---
Ba: BARNEY-----	5w	---	---	---	---	---	---	---
Bo: BOEL-----	3w	3w	3.00	4.50	35.00	100.00	19.00	---
Bt: BROCKSBURG-----	2s	2s	2.00	5.20	34.00	135.00	25.00	---
Cb: CASS-----	1	1	1.30	5.30	40.00	133.00	22.00	---
CcB: CASS-----	6w	---	---	---	---	---	---	---
DdB: DUDA-----	4e	4e	1.50	4.00	20.00	118.00	15.00	---
DdC: DUDA-----	6e	4e	1.50	3.80	18.00	---	13.00	---
DuB: DUNDAY-----	4e	3e	1.60	4.00	25.00	122.00	15.00	---
DxB: DUNDAY-----	4e	3e	1.60	4.00	25.00	120.00	15.00	---
DUDA-----	4e	4e	1.60	4.00	25.00	120.00	15.00	---
Eo: ELS-----	6e	4w	---	3.50	---	85.00	---	---
Es: ELSMERE-----	4w	4w	2.00	4.00	35.00	100.00	20.00	---
Ho: HOLT-----	3e	3e	2.00	4.80	30.00	125.00	20.00	---
HoC: HOLT-----	3e	3e	1.70	4.50	27.00	120.00	18.00	---
HtC: HOLT-----	3e	3e	1.50	4.00	25.00	110.00	16.00	---
LONGPINE-----	6s	---	1.50	4.00	25.00	110.00	16.00	---
HtD: HOLT-----	4e	4e	1.50	4.00	23.00	100.00	15.00	---
LONGPINE-----	6s	---	1.50	4.00	23.00	100.00	15.00	---
IfD: INAVALE-----	6e	4e	---	2.50	---	80.00	---	---
IgB: INAVALE-----	6w	---	---	---	---	---	---	---
IhB: INAVALE-----	4e	3e	1.50	4.00	25.00	110.00	15.00	---
IpB: IPAGE-----	4e	4e	1.00	4.00	20.00	110.00	10.00	---
Ja: JANSEN-----	2e	2e	1.80	4.50	26.00	130.00	18.00	---
Jn: JANSEN-----	2s	2s	1.50	5.00	30.00	135.00	21.00	---

LAND CAPABILITY AND YIELDS PER ACRE OF CROPS--Continued

Keya Paha County, Nebraska

(Yields in the "N" columns are for nonirrigated soils; those in the "I" columns are for irrigated soils. Yields are those that can be expected under a high level of nonirrigated and irrigated management by component. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and soil name	Land Capability		Alfalfa hay		Corn		Winter wheat	
	N	I	N	I	N	I	N	I
			Tons		Bu		Bu	
JnC: JANSEN-----	3e	3e	1.30	4.40	25.00	128.00	20.00	---
JoB: JANSEN-----	2s	2s	1.00	4.20	15.00	100.00	15.00	---
MEADIN-----	6s	4s	1.00	4.20	15.00	100.00	15.00	---
LaD: LABU-----	4e	4e	0.90	---	20.00	---	23.00	---
LcF: LABU-----	6e	---	---	---	---	---	---	---
SANSARC-----	6s	---	---	---	---	---	---	---
Lo: LOUP-----	5w	---	---	---	---	---	---	---
Lp: LOUP-----	5w	---	---	---	---	---	---	---
MaB: HOLT VARIANT----	3e	3e	1.50	4.30	25.00	125.00	15.00	---
MaC: HOLT VARIANT----	4e	4e	1.40	4.20	22.00	120.00	14.00	---
MfC: HOLT VARIANT----	3e	3e	1.70	4.50	27.00	130.00	19.00	---
MkG: MARIAVILLE-----	7s	---	---	---	---	---	---	---
KEOTA-----	7e	---	---	---	---	---	---	---
Mm: MARLAKE-----	8w	---	---	---	---	---	---	---
MnF: MEADIN-----	6s	---	---	---	---	---	---	---
Mu: MUNJOR-----	2e	2e	2.20	5.20	35.00	130.00	20.00	---
OaB: O'NEILL-----	4e	3e	1.20	4.00	20.00	105.00	13.00	---
Oe: O'NEILL-----	3e	3e	0.90	3.80	25.00	125.00	16.00	---
OeC: O'NEILL-----	4e	4e	0.80	3.50	22.00	110.00	15.00	---
OeD: O'NEILL-----	6e	4e	0.70	3.30	18.00	---	12.00	---
OhB: O'NEILL-----	3e	3e	---	2.50	---	95.00	---	---
MEADIN-----	6s	4s	---	2.50	---	95.00	---	---
OkD: O'NEILL-----	3e	3e	---	2.50	---	95.00	---	---
VALENTINE-----	6e	4e	---	2.50	---	95.00	---	---
On: ONITA-----	2c	1	1.60	5.50	50.00	140.00	30.00	---
Or: ORD-----	2w	2w	2.00	5.00	40.00	110.00	20.00	---
LOUP-----	5w	---	2.00	5.00	40.00	110.00	20.00	---
Pf: PAKA-----	2e	2e	1.90	4.50	38.00	130.00	19.00	---
Ph: PAKA-----	2c	1	1.90	5.20	47.00	140.00	27.00	---

LAND CAPABILITY AND YIELDS PER ACRE OF CROPS--Continued

Keya Paha County, Nebraska

(Yields in the "N" columns are for nonirrigated soils; those in the "I" columns are for irrigated soils. Yields are those that can be expected under a high level of nonirrigated and irrigated management by component. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and soil name	Land Capability		Alfalfa hay		Corn		Winter wheat	
	N	I	N	I	N	I	N	I
			Tons		Bu		Bu	
PhB: PAKA-----	2e	2e	1.70	4.50	42.00	130.00	25.00	---
PERCHED WT-----	---	---	---	---	---	---	---	---
PmC: PAKA-----	3e	3e	1.50	4.30	30.00	115.00	23.00	---
MARIAVILLE-----	6s	---	1.50	4.30	30.00	115.00	23.00	---
PmF: PAKA-----	6e	---	---	---	---	---	---	---
MARIAVILLE-----	6s	---	---	---	---	---	---	---
RaB: REE-----	2e	2e	1.30	4.50	40.00	135.00	27.00	---
Rb: REE-----	2c	1	2.10	5.00	35.00	130.00	25.00	---
ReC: RELIANCE-----	3e	3e	1.30	5.00	45.00	130.00	25.00	---
RoD: RONSON-----	4e	4e	1.00	4.00	23.00	120.00	16.00	---
ANSELMO-----	4e	4e	1.00	4.00	23.00	120.00	16.00	---
RoF: RONSON-----	6e	---	---	3.00	---	---	---	---
ANSELMO-----	6e	---	---	3.00	---	---	---	---
RtB: RONSON-----	3e	3e	1.50	4.00	18.00	90.00	15.00	---
LONGPINE-----	6s	---	1.50	4.00	18.00	90.00	15.00	---
SaG: SANSARC-----	7e	---	---	---	---	---	---	---
ScF: SCHAMBER-----	6s	---	---	---	---	---	---	---
SmF: SIMEON-----	6s	---	---	---	---	---	---	---
HOLT VARIANT-----	6e	4e	---	---	---	---	---	---
RONSON-----	6e	---	---	---	---	---	---	---
SvF2: SIMEON-----	6s	---	---	---	---	---	---	---
VALENTINE-----	6e	---	---	---	---	---	---	---
SwB: SIMEON-----	6s	4s	---	2.80	---	90.00	---	---
VALENTINE-----	4e	4e	---	2.80	---	90.00	---	---
TaF: LONGPINE-----	6s	---	---	---	---	---	---	---
TdE: LONGPINE-----	6s	---	---	---	---	---	---	---
DUDA-----	6e	---	---	---	---	---	---	---
WT AT 0-1 FOOT--	---	---	---	---	---	---	---	---
TrG: LONGPINE-----	7s	---	---	---	---	---	---	---
RONSON-----	6e	---	---	---	---	---	---	---
DUDA-----	6e	---	---	---	---	---	---	---

LAND CAPABILITY AND YIELDS PER ACRE OF CROPS--Continued
Keya Paha County, Nebraska

PAGE 5 of 5

(Yields in the "N" columns are for nonirrigated soils; those in the "I" columns are for irrigated soils. Yields are those that can be expected under a high level of nonirrigated and irrigated management by component. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)

Map symbol and soil name	Land Capability		Alfalfa hay		Corn		Winter wheat	
	N	I	N	I	N	I	N	I
			Tons		Bu		Bu	
Tu: HENNINGS-----	2e	2e	2.00	5.00	30.00	135.00	20.00	---
VaF: VALENTINE-----	6e	---	---	---	---	---	---	---
VaG: VALENTINE-----	7e	---	1.30	---	---	---	---	---
VbD: VALENTINE-----	6e	4e	---	3.00	---	95.00	---	---
VcF: VALENTINE-----	6e	---	---	---	---	---	---	---
LONGPINE-----	6s	---	---	---	---	---	---	---
VdC: VALENTINE-----	6e	4e	1.00	4.00	25.00	110.00	15.00	---
VALENTINE-----	6e	4e	1.00	4.00	25.00	110.00	15.00	---
WEWELA-----	6e	4e	1.00	4.00	25.00	110.00	15.00	---
VdF: VALENTINE-----	6e	---	0.90	---	---	---	---	---
VALENTINE-----	6e	---	0.90	---	---	---	---	---
WEWELA-----	6e	4e	0.90	---	---	---	---	---
Ve: VERDEL-----	2s	2s	1.40	5.00	40.00	115.00	25.00	---
VeB: VERDEL-----	2e	2e	1.40	4.90	35.00	110.00	24.00	---
VeC: VERDEL-----	3e	3e	1.30	---	30.00	---	22.00	---
Vo: VETAL-----	2e	2e	1.80	5.20	40.00	135.00	20.00	---
Vt: VETAL-----	2c	1	2.70	6.00	45.00	140.00	30.00	---
VtB: VETAL-----	2e	2e	2.50	5.80	40.00	135.00	28.00	---
VtC: VETAL-----	3e	3e	1.70	5.00	38.00	130.00	25.00	---
WeB: WEWELA-----	3e	3e	1.20	4.20	30.00	125.00	20.00	---
WeC: WEWELA-----	3e	3e	1.00	4.00	27.00	120.00	18.00	---
zwa: WATER-----	---	---	---	---	---	---	---	---
zwb: WATER-----	---	---	---	---	---	---	---	---

Prime farmland is one of several kinds of important farmland defined by the U.S. Department of Agriculture. It is of major importance in meeting the Nation's short- and long-range needs for food and fiber. Because the supply of high-quality farmland is limited, the U.S. Department of Agriculture recognizes that responsible levels of government, as well as individuals, should encourage and facilitate the wise use of our Nation's prime farmland.

Prime farmland, as defined by the U.S. Department of Agriculture, is land that has the best combination of physical and chemical characteristics for producing food, feed, forage, fiber, and oilseed crops and is available for these uses. It could be cultivated land, pastureland, forestland, or other land, but it is not urban or built-up land or water areas. The soil qualities, growing season, and moisture supply are those needed for the soil to economically produce sustained high yields of crops when proper management, including water management, and acceptable farming methods are applied. In general, prime farmland has an adequate and dependable supply of moisture from precipitation or irrigation, a favorable temperature and growing season, acceptable acidity or alkalinity, an acceptable salt and sodium content, and few or no rocks. It is permeable to water and air. It is not excessively erodible or saturated with water for long periods, and it either is not frequently flooded during the growing season or is protected from flooding. Slope ranges mainly from 0 to 6 percent. More detailed information about the criteria for prime farmland is available at the local office of the Natural Resources Conservation Service.

A recent trend in land use in some parts of the survey area has been the loss of some prime farmland to industrial and urban uses. The loss of prime farmland to other uses puts pressure on marginal lands, which generally are more erodible, droughty, and less productive and cannot be easily cultivated.

The map units in the survey area that are considered prime farmland are listed in the following table. This list does not constitute a recommendation for a particular land use. On some soils included in the list, measures that overcome a hazard or limitation, such as flooding, wetness, and droughtiness, are needed. Onsite evaluation is needed to determine whether or not the hazard or limitation has been overcome by corrective measures. The extent of each listed map unit is shown in the "Acres and Proportionate Extent of Soils" table. The location is shown on the detailed soil maps. The soil qualities that affect use and management are described in other tables in this document."

Map symbol	Mapunit name	Farmland Classification
An	Anselmo fine sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated
AnC	Anselmo fine sandy loam, 2 to 6 percent slopes	Prime farmland if irrigated
Bt	Brocksburg loam, 0 to 1 percent slopes	Prime farmland if irrigated
Cb	Cass loam, 0 to 2 percent slopes	Prime farmland if irrigated
Ja	Jansen fine sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated
Jn	Jansen loam, 0 to 2 percent slopes	Prime farmland if irrigated
JnC	Jansen loam, 2 to 6 percent slopes	Prime farmland if irrigated
MfC	Manter fine sandy loam, 2 to 6 percent slopes	Prime farmland if irrigated
Mu	Munjor fine sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated
On	Onita silt loam, 0 to 1 percent slopes	Prime farmland if irrigated
Pf	Paka fine sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated
Ph	Paka loam, 0 to 1 percent slopes	Prime farmland if irrigated
PhB	Paka loam, 1 to 3 percent slopes	Prime farmland if irrigated
RaB	Ree loam, 1 to 3 percent slopes	Prime farmland if irrigated
Rb	Ree loam, clayey substratum, 0 to 2 percent slopes	Prime farmland if irrigated
ReC	Reliance silt loam, 2 to 6 percent slopes	Prime farmland if irrigated
Tu	Tuthill fine sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated
Ve	Verdel silty clay loam, 0 to 1 percent slopes	Prime farmland if irrigated
VeB	Verdel silty clay loam, 1 to 3 percent slopes	Prime farmland if irrigated
VeC	Verdel silty clay loam, 3 to 6 percent slopes	Prime farmland if irrigated
Vo	Vetal fine sandy loam, 0 to 2 percent slopes	Prime farmland if irrigated
Vt	Vetal loam, 0 to 1 percent slopes	Prime farmland if irrigated
VtB	Vetal loam, 1 to 3 percent slopes	Prime farmland if irrigated
VtC	Vetal loam, 3 to 6 percent slopes	Prime farmland if irrigated

The "Soil Rating for Plant Growth, modified 1998" (SRPG) is a relative rating of the capacity of a soil to produce a specific plant under a defined management system. The index is determined from yield data on a few benchmark soils and is used to calculate yields, the net returns from crops, land assessment values, and taxes and to perform risk analysis when land management decisions are made. Specific information on plants and yields can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Map symbol	Soil name	Crop Index
Ab	Albaton Variant Clay, 0 To 2 Percent Slopes-----	27
AmB	Anselmo Loamy Fine Sand, 0 To 3 Percent Slopes-----	54
An	Anselmo Fine Sandy Loam, 0 To 2 Percent Slopes-----	56
AnC	Anselmo Fine Sandy Loam, 2 To 6 Percent Slopes-----	57
Ba	Barney Fine Sandy Loam, 0 To 2 Percent Slopes-----	23
Bo	Boel Fine Sandy Loam, 0 To 2 Percent Slopes-----	25
Bt	Brocksburg Loam, 0 To 1 Percent Slopes-----	53
Cb	Cass Loam, 0 To 2 Percent Slopes-----	57
CcB	Cass Loam, Channeled, 0 To 3 Percent Slopes-----	44
DdB	Duda Loamy Fine Sand, 0 To 3 Percent Slopes-----	25
DdC	Duda Loamy Fine Sand, 3 To 6 Percent Slopes-----	24
DuB	Dunday Loamy Fine Sand, 0 To 3 Percent Slopes-----	30
DxB	Dunday-Duda Loamy Fine Sands, 0 To 3 Percent Slopes-----	28
Es	Els Fine Sand, 0 To 2 Percent Slopes-----	23
Es	Elsmere Loamy Fine Sand, 0 To 2 Percent Slopes-----	28
Ho	Holt Fine Sandy Loam, 0 To 2 Percent Slopes-----	26
HoC	Holt Fine Sandy Loam, 2 To 6 Percent Slopes-----	29
HtC	Holt-Tassel Fine Sandy Loams, 3 To 6 Percent Slopes-----	22
HtD	Holt-Tassel Fine Sandy Loams, 6 To 11 Percent Slopes-----	19
IfD	Inavale Fine Sand, 3 To 11 Percent Slopes-----	27
IgB	Inavale Fine Sand, Channeled, 0 To 3 Percent Slopes-----	23
IhB	Inavale Loamy Fine Sand, 0 To 3 Percent Slopes-----	31
IpB	Ipaga Loamy Fine Sand, 0 To 3 Percent Slopes-----	27
Ja	Jansen Fine Sandy Loam, 0 To 2 Percent Slopes-----	47
Jn	Jansen Loam, 0 To 2 Percent Slopes-----	47
JnC	Jansen Loam, 2 To 6 Percent Slopes-----	45
JoB	Jansen-Meadin Loams, 0 To 3 Percent Slopes-----	41
LaD	Labu Silty Clay, 6 To 11 Percent Slopes-----	21
LcF	Labu-Sansarc Silty Clays, 11 To 30 Percent Slopes-----	8
Lo	Loup Fine Sandy Loam, 0 To 2 Percent Slopes-----	30
Lp	Loup Fine Sandy Loam, Wet, 0 To 2 Percent Slopes-----	20
MaB	Manter Loamy Fine Sand, 0 To 3 Percent Slopes-----	44
MaC	Manter Loamy Fine Sand, 3 To 6 Percent Slopes-----	42
MfC	Manter Fine Sandy Loam, 2 To 6 Percent Slopes-----	46
MkG	Mariaville-Keota Silt Loams, 15 To 60 Percent Slopes-----	3
Mm	Marlake Loamy Fine Sand, 0 To 1 Percent Slopes-----	3
MnF	Meadin Gravelly Sandy Loam, 3 To 30 Percent Slopes-----	21
Mu	Munjor Fine Sandy Loam, 0 To 2 Percent Slopes-----	39
OaB	O'Neill Loamy Fine Sand, 0 To 3 Percent Slopes-----	40
Oe	O'Neill Fine Sandy Loam, 0 To 2 Percent Slopes-----	36
OeC	O'Neill Fine Sandy Loam, 2 To 6 Percent Slopes-----	34
OeD	O'Neill Fine Sandy Loam, 6 To 9 Percent Slopes-----	32
OhB	O'Neill-Meadin Fine Sandy Loams, 0 To 3 Percent Slopes-----	33
OkD	O'Neill-Valentine Complex, 1 To 9 Percent Slopes-----	30
On	Onita Silt Loam, 0 To 1 Percent Slopes-----	62
Or	Ord-Loup Fine Sandy Loams, 0 To 2 Percent Slopes-----	33
Pf	Paka Fine Sandy Loam, 0 To 2 Percent Slopes-----	58
Ph	Paka Loam, 0 To 1 Percent Slopes-----	63
PhB	Paka Loam, 1 To 3 Percent Slopes-----	62
PmC	Paka-Mariaville Loams, 3 To 6 Percent Slopes-----	39
PmF	Paka-Mariaville Loams, 11 To 30 Percent Slopes-----	20
RaB	Ree Loam, 1 To 3 Percent Slopes-----	64
Rb	Ree Loam, Clayey Substratum, 0 To 2 Percent Slopes-----	61
ReC	Reliance Silt Loam, 2 To 6 Percent Slopes-----	57
RoD	Ronson-Anselmo Fine Sandy Loams, 6 To 9 Percent Slopes-----	37
RoF	Ronson-Anselmo Fine Sandy Loams, 9 To 30 Percent Slopes-----	29
RtB	Ronson-Tassel Fine Sandy Loams, 0 To 3 Percent Slopes-----	19
SaG	Sansarc Silty Clay, 20 To 40 Percent Slopes-----	0
ScF	Schamber Gravelly Sandy Loam, 11 To 30 Percent Slopes-----	9
SmF	Simeon-Manter-Ronson Complex, 6 To 17 Percent Slopes-----	23
SvF2	Simeon-Valentine Fine Sands, 6 To 17 Percent Slopes, Eroded-----	21
SwB	Simeon-Valentine Loamy Sands, 0 To 3 Percent Slopes-----	26
TaF	Tassel Loamy Fine Sand, 3 To 30 Percent Slopes-----	5
TdE	Tassel-Duda Complex, 3 To 15 Percent Slopes-----	13
TrG	Tassel-Ronson-Duda Complex, 15 To 70 Percent Slopes-----	8
Tu	Tuthill Fine Sandy Loam, 0 To 2 Percent Slopes-----	48
VaF	Valentine Fine Sand, Rolling-----	16
VaG	Valentine Fine Sand, Hilly-----	1
VbD	Valentine Loamy Fine Sand, Gently Rolling-----	23
VcF	Valentine-Tassel Complex, Rolling-----	16
VdC	Valentine-Wewela Loamy Fine Sands, 3 To 6 Percent Slopes-----	29
VdF	Valentine-Wewela Loamy Fine Sands, 6 To 30 Percent Slopes-----	22
Ve	Verdel Silty Clay Loam, 0 To 1 Percent Slopes-----	51
VeB	Verdel Silty Clay Loam, 1 To 3 Percent Slopes-----	50
VeC	Verdel Silty Clay Loam, 3 To 6 Percent Slopes-----	48
Vo	Vetal Fine Sandy Loam, 0 To 2 Percent Slopes-----	55
Vt	Vetal Loam, 0 To 1 Percent Slopes-----	62
VtB	Vetal Loam, 1 To 3 Percent Slopes-----	61
VtC	Vetal Loam, 3 To 6 Percent Slopes-----	59
WeB	Wewela Fine Sandy Loam, 0 To 3 Percent Slopes-----	34
WeC	Wewela Fine Sandy Loam, 3 To 6 Percent Slopes-----	32

The "Soil Rating for Plant Growth, modified 1998" (SRPG) is a relative rating of the capacity of a soil to produce a specific plant under a defined management system. The index is determined from yield data on a few benchmark soils and is used to calculate yields, the net returns from crops, land assessment values, and taxes and to perform risk analysis when land management decisions are made. Specific information on plants and yields can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

Map symbol	Soil name	Crop Index
zwa	Water > 40 Acres-----	0
zwb	Water < 40 Acres-----	0

Keya Paha County, Nebraska: Published
Field Office Thunderbook: Soils Properties for Conservation Planning

(Entries under "Erosion factors--T" apply to the entire profile. Entries under "K", "Kf", "Wind Erodibility Group" and "Wind Erodibility Index" apply only to the surface layer)

Map symbol and soil name	Percent	Irr Cap Class	Nonirr Cap Class	Prime Farmland	Hydro- logic Group	Range site name	Windbreak suitability group	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
Ab:ALBATON VARIANT-----	100	N/A	4w	Not prime farmland	D	Clayey Overflow - Veg. Zone 3		.32	.32	4	4	86
AmB:ANSELMO-----	100	3e-	3e	Not prime farmland	B	Sandy - Veg. Zone 3		.17	.17	5	2	134
An:ANSELMO-----	100	2e-	2e	Prime farmland if irrigated	B	Sandy - Veg. Zone 3		.20	.20	5	3	86
AnC:ANSELMO-----	100	3e-	3e	Prime farmland if irrigated	B	Sandy - Veg. Zone 3		.20	.20	5	3	86
Ba:BARNEY-----	100	N/A	5w	Not prime farmland	D	Wet Land - Veg. Zone 3		.20	.20	5	8	0
Bo:BOEL-----	100	3w-	3w	Not prime farmland	A	Subirrigated - Veg. Zone 3		.20	.20	3	3	86
Bt:BROCKSBURG---	100	2s-	2s	Prime farmland if irrigated	B	Silty - Veg. Zone 3		.28	.28	4	5	56
Cb:CASS-----	100	1-	1	Prime farmland if irrigated	B	Sandy Lowland - Veg. Zone 3		.28	.28	5	5	56
CcB:CASS-----	100	N/A	6w	Not prime farmland	B	Sandy Lowland - Veg. Zone 3		.28	.28	5	5	56
DdB:DUDA-----	100	4e-	4e	Not prime farmland	A	Sandy - Veg. Zone 3		.17	.17	3	2	134
DdC:DUDA-----	100	4e-	6e	Not prime farmland	A	Sandy - Veg. Zone 3		.17	.17	3	2	134
DuB:DUNDAY-----	100	3e-	4e	Not prime farmland	A	Sandy - Veg. Zone 3		.17	.17	5	2	134
DxB:DUNDAY-----	55	3e-	4e	Not prime farmland	A	Sandy - Veg. Zone 3		.17	.17	5	2	134
DxB:DUDA-----	45	4e-	4e	Not prime farmland	A	Sandy - Veg. Zone 3		.17	.17	3	2	134
Eo:ELS-----	100	4w-	6e	Not prime farmland	A	Subirrigated - Veg. Zone 3		.15	.15	5	1	220
Es:ELSMERE-----	100	4w-	4w	Not prime farmland	A	Subirrigated - Veg. Zone 3		.17	.17	5	2	134
Ho:HOLT-----	100	3e-	3e	Not prime farmland	B	Sandy - Veg. Zone 3		.20	.20	3	3	86
HoC:HOLT-----	100	3e-	3e	Not prime farmland	B	Sandy - Veg. Zone 3		.20	.20	3	3	86
HtC:HOLT-----	70	3e-	3e	Not prime farmland	B	Sandy - Veg. Zone 3		.20	.20	3	3	86

Keya Paha County, Nebraska: Published
Field Office Thunderbook: Soils Properties for Conservation Planning

(Entries under "Erosion factors--T" apply to the entire profile. Entries under "K", "Kf", "Wind Erodibility Group" and "Wind Erodibility Index" apply only to the surface layer)

Map symbol and soil name	Percent	Irr Cap Class	Nonirr Cap Class	Prime Farmland	Hydro- logic Group	Range site name	Windbreak suitability group	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
HtC:LONGPINE----	30	N/A	6s	Not prime farmland	D	Shallow Limy - Veg. Zone 3		.24	.24	2	3	86
HtD:HOLT-----	60	4e-	4e	Not prime farmland	B	Sandy - Veg. Zone 3		.20	.20	3	3	86
HtD:LONGPINE----	40	N/A	6s	Not prime farmland	D	Shallow Limy - Veg. Zone 3		.24	.24	2	3	86
IfD:INAVALE-----	100	4e-	6e	Not prime farmland	A	Sands - Veg. Zone 3		.15	.15	5	1	220
IgB:INAVALE-----	100	N/A	6w	Not prime farmland	A	Sandy Lowland - Veg. Zone 3		.15	.15	5	1	220
IhB:INAVALE-----	100	3e-	4e	Not prime farmland	A	Sandy Lowland - Veg. Zone 3		.17	.17	5	2	134
IpB:IPAGE-----	100	4e-	4e	Not prime farmland	A	Sandy Lowland - Veg. Zone 3		.17	.17	5	2	134
Ja:JANSEN-----	100	2e-	2e	Prime farmland if irrigated	B	Sandy - Veg. Zone 3		.20	.20	4	3	86
Jn:JANSEN-----	100	2s-	2s	Prime farmland if irrigated	B	Silty - Veg. Zone 3		.28	.28	4	5	56
JnC:JANSEN-----	100	3e-	3e	Prime farmland if irrigated	B	Silty - Veg. Zone 3		.28	.28	4	5	56
JoB:JANSEN-----	60	2s-	2s	Not prime farmland	B	Silty - Veg. Zone 3		.28	.28	4	5	56
JoB:MEADIN-----	40	4s-	6s	Not prime farmland	A	Shallow To Gravel - Veg. Zone 3		.28	.28	5	5	56
LaD:LABU-----	100	4e-	4e	Not prime farmland	D	Clayey - Veg. Zone 3		.32	.32	3	4	86
LcF:LABU-----	60	N/A	6e	Not prime farmland	D	Clayey - Veg. Zone 3		.32	.32	3	4	86
LcF:SANSARC-----	40	N/A	6s	Not prime farmland	D	Shallow Clay - Veg. Zone 3		.37	.37	2	4	86
Lo:LOUP-----	100	N/A	5w	Not prime farmland	D	Wet Subirrigated - Veg. Zone 3		.20	.20	3	8	0
Lp:LOUP-----	100	N/A	5w	Not prime farmland	D	Wet Land - Veg. Zone 3		.20	.20	3	8	0
MaB:HOLT VARIANT	100	3e-	3e	Not prime farmland	B	Sandy - Veg. Zone 3		.17	.17	4	2	134
MaC:HOLT VARIANT	100	4e-	4e	Not prime farmland	B	Sandy - Veg. Zone 3		.17	.17	4	2	134

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(Entries under "Erosion factors--T" apply to the entire profile. Entries under "K", "Kf", "Wind Erodibility Group" and "Wind Erodibility Index" apply only to the surface layer)

Map symbol and soil name	Percent	Irr Cap Class	Nonirr Cap Class	Prime Farmland	Hydro- logic Group	Range site name	Windbreak suitability group	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
MfC:HOLT VARIANT	100	3e-	3e	Prime farmland if irrigated	B	Sandy - Veg. Zone 3		.20	.20	4	3	86
MkG:MARIAVILLE--	60	N/A	7s	Not prime farmland	D	Shallow Limy - Veg. Zone 3		.43	.43	2	4L	86
MkG:KEOTA-----	40	N/A	7e	Not prime farmland	B	Limy Upland - Veg. Zone 3		.37	.37	3	4L	86
Mm:MARLAKE-----	100	N/A	8w	Not prime farmland	D	Unspecified		.17	.17	5	8	0
MnF:MEADIN-----	100	N/A	6s	Not prime farmland	A	Shallow To Gravel - Veg. Zone 3		.15	.24	5	8	0
Mu:MUNJOR-----	100	2e-	2e	Prime farmland if irrigated	B	Sandy Lowland - Veg. Zone 3		.24	.24	4	3	86
OaB:O'NEILL-----	100	3e-	4e	Not prime farmland	B	Sandy - Veg. Zone 3		.17	.17	4	2	134
Oe:O'NEILL-----	100	3e-	3e	Not prime farmland	B	Sandy - Veg. Zone 3		.20	.20	4	3	86
OeC:O'NEILL-----	100	4e-	4e	Not prime farmland	B	Sandy - Veg. Zone 3		.20	.20	4	3	86
OeD:O'NEILL-----	100	4e-	6e	Not prime farmland	B	Sandy - Veg. Zone 3		.20	.20	4	3	86
OhB:O'NEILL-----	60	3e-	3e	Not prime farmland	B	Sandy - Veg. Zone 3		.20	.20	4	3	86
OhB:MEADIN-----	40	4s-	6s	Not prime farmland	A	Shallow To Gravel - Veg. Zone 3		.20	.20	5	3	86
OkD:O'NEILL-----	60	3e-	3e	Not prime farmland	B	Sandy - Veg. Zone 3		.20	.20	4	3	86
OkD:VALENTINE---	40	4e-	6e	Not prime farmland	A	Sands - Veg. Zone 3		.15	.15	5	1	250
On:ONITA-----	100	1-	2c	Prime farmland if irrigated	C	Silty - Veg. Zone 3		.28	.28	5	6	48
Or:ORD-----	70	2w-	2w	Not prime farmland	B	Subirrigated - Veg. Zone 3		.20	.20	4	3	86
Or:LOUP-----	30	N/A	5w	Not prime farmland	D	Wet Subirrigated - Veg. Zone 3		.20	.20	3	8	0
Pf:PAKA-----	100	2e-	2e	Prime farmland if irrigated	B	Silty - Veg. Zone 3		.20	.20	4	3	86

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(Entries under "Erosion factors--T" apply to the entire profile. Entries under "K", "Kf", "Wind Erodibility Group" and "Wind Erodibility Index" apply only to the surface layer)

Map symbol and soil name	Percent	Irr Cap Class	Nonirr Cap Class	Prime Farmland	Hydro- logic Group	Range site name	Windbreak suitability group	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
Ph:PAKA-----	100	1-	2c	Prime farmland if irrigated	B	Silty - Veg. Zone 3		.28	.28	4	5	56
PhB:PAKA-----	100	2e-	2e	Prime farmland if irrigated	B	Silty - Veg. Zone 3		.28	.28	4	5	56
PhB:PERCHED WT--		N/A	N/A	Prime farmland if irrigated		Unspecified		---	---	-	---	---
PmC:PAKA-----	60	3e-	3e	Not prime farmland	B	Silty - Veg. Zone 3		.28	.28	4	5	56
PmC:MARIAVILLE--	40	N/A	6s	Not prime farmland	D	Shallow Limy - Veg. Zone 3		.37	.37	2	4L	86
PmF:PAKA-----	55	N/A	6e	Not prime farmland	B	Silty - Veg. Zone 3		.28	.28	4	5	56
PmF:MARIAVILLE--	45	N/A	6s	Not prime farmland	D	Shallow Limy - Veg. Zone 3		.37	.37	2	4L	86
RaB:REE-----	100	2e-	2e	Prime farmland if irrigated	B	Silty - Veg. Zone 3		.28	.28	5	6	48
Rb:REE-----	100	1-	2c	Prime farmland if irrigated	B	Silty - Veg. Zone 3		.28	.28	4	6	48
ReC:RELIANCE----	100	3e-	3e	Prime farmland if irrigated	C	Silty - Veg. Zone 3		.32	.32	4	6	48
RoD:RONSON-----	55	4e-	4e	Not prime farmland	B	Sandy - Veg. Zone 3		.20	.20	3	3	86
RoD:ANSELMO-----	45	4e-	4e	Not prime farmland	B	Sandy - Veg. Zone 3		.20	.20	5	3	86
RoF:RONSON-----	55	N/A	6e	Not prime farmland	B	Sandy - Veg. Zone 3		.20	.20	3	3	86
RoF:ANSELMO-----	45	N/A	6e	Not prime farmland	B	Sandy - Veg. Zone 3		.20	.20	5	3	86
RtB:RONSON-----	55	3e-	3e	Not prime farmland	B	Sandy - Veg. Zone 3		.20	.20	3	3	86
RtB:LONGPINE----	45	N/A	6s	Not prime farmland	D	Shallow Limy - Veg. Zone 3		.24	.24	2	3	86
SaG:SANSARC-----	100	N/A	7e	Not prime farmland	D	Shallow Clay - Veg. Zone 3		.37	.37	2	4	86
ScF:SCHAMBER----	100	N/A	6s	Not prime farmland	A	Shallow To Gravel - Veg. Zone 3		.20	.28	2	8	0

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(Entries under "Erosion factors--T" apply to the entire profile. Entries under "K", "Kf", "Wind Erodibility Group" and "Wind Erodibility Index" apply only to the surface layer)

Map symbol and soil name	Percent	Irr Cap Class	Nonirr Cap Class	Prime Farmland	Hydro- logic Group	Range site name	Windbreak suitability group	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
SmF:SIMEON-----	40	N/A	6s	Not prime farmland	A	Shallow To Gravel - Veg. Zone 3		.17	.17	5	2	134
SmF:HOLT VARIANT	35	4e-	6e	Not prime farmland	B	Sandy - Veg. Zone 3		.17	.17	4	2	134
SmF:RONSON-----	25	N/A	6e	Not prime farmland	B	Sandy - Veg. Zone 3		.17	.17	3	2	134
SvF2:SIMEON-----	60	N/A	6s	Not prime farmland	A	Shallow To Gravel - Veg. Zone 3		.15	.15	5	1	250
SvF2:VALENTINE--	40	N/A	6e	Not prime farmland	A	Sands - Veg. Zone 3		.15	.15	5	1	250
SwB:SIMEON-----	65	4s-	6s	Not prime farmland	A	Shallow To Gravel - Veg. Zone 3		.17	.17	5	2	134
SwB:VALENTINE---	35	4e-	4e	Not prime farmland	A	Sandy - Veg. Zone 3		.17	.17	5	2	134
TaF:LONGPINE----	100	N/A	6s	Not prime farmland	D	Shallow Limy - Veg. Zone 3		.17	.17	2	2	134
TdE:LONGPINE----	60	N/A	6s	Not prime farmland	D	Shallow Limy - Veg. Zone 3		.24	.24	2	3	86
TdE:DUDA-----	40	N/A	6e	Not prime farmland	A	Sandy - Veg. Zone 3		.17	.17	3	2	134
TdE:WT AT 0-1 FOOT-----		N/A	N/A	Not prime farmland		Unspecified		---	---	-	---	---
TrG:LONGPINE----	40	N/A	7s	Not prime farmland	D	Shallow Limy - Veg. Zone 3		.17	.17	2	2	134
TrG:RONSON-----	35	N/A	6e	Not prime farmland	B	Sandy - Veg. Zone 3		.20	.20	3	3	86
TrG:DUDA-----	25	N/A	6e	Not prime farmland	A	Savannah - Veg. Zone 3		.24	.24	3	3	86
Tu:HENNINGS-----	100	2e-	2e	Prime farmland if irrigated	B	Silty - Veg. Zone 3		.20	.20	4	3	86
VaF:VALENTINE---	100	N/A	6e	Not prime farmland	A	Sands - Veg. Zone 3		.15	.15	5	1	250
VaG:VALENTINE---	100	N/A	7e	Not prime farmland	A	Choppy Sands - Veg. Zone 3		.15	.15	5	1	250
VbD:VALENTINE---	100	4e-	6e	Not prime farmland	A	Sands - Veg. Zone 3		.17	.17	5	2	134
VcF:VALENTINE---	75	N/A	6e	Not prime farmland	A	Sands - Veg. Zone 3		.15	.15	5	1	250

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(Entries under "Erosion factors--T" apply to the entire profile. Entries under "K", "Kf", "Wind Erodibility Group" and "Wind Erodibility Index" apply only to the surface layer)

Map symbol and soil name	Percent	Irr Cap Class	Nonirr Cap Class	Prime Farmland	Hydro- logic Group	Range site name	Windbreak suitability group	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
								K	Kf	T		
VcF:LONGPINE----	25	N/A	6s	Not prime farmland	D	Shallow Limy - Veg. Zone 3		.24	.24	2	3	86
VdC:VALENTINE---	40	4e-	6e	Not prime farmland	A	Sands - Veg. Zone 3		.17	.17	5	2	134
	30	4e-	6e	Not prime farmland	A	Sandy - Veg. Zone 3		.17	.17	5	2	134
VdC:WEWELA-----	30	4e-	6e	Not prime farmland	B	Sandy - Veg. Zone 3		.17	.17	3	2	134
VdF:VALENTINE---	40	N/A	6e	Not prime farmland	A	Sands - Veg. Zone 3		.17	.17	5	2	134
	30	N/A	6e	Not prime farmland	A	Sandy - Veg. Zone 3		.17	.17	5	2	134
VdF:WEWELA-----	30	4e-	6e	Not prime farmland	B	Sandy - Veg. Zone 3		.17	.17	3	2	134
Ve:VERDEL-----	100	2s-	2s	Prime farmland if irrigated	D	Clayey - Veg. Zone 3		.32	.32	5	7	38
VeB:VERDEL-----	100	2e-	2e	Prime farmland if irrigated	D	Clayey - Veg. Zone 3		.32	.32	5	7	38
VeC:VERDEL-----	100	3e-	3e	Prime farmland if irrigated	D	Clayey - Veg. Zone 3		.32	.32	5	7	38
Vo:VETAL-----	100	2e-	2e	Prime farmland if irrigated	B	Sandy - Veg. Zone 3		.20	.20	5	3	86
Vt:VETAL-----	100	1-	2c	Prime farmland if irrigated	B	Silty - Veg. Zone 3		.28	.28	5	5	56
VtB:VETAL-----	100	2e-	2e	Prime farmland if irrigated	B	Silty - Veg. Zone 3		.28	.28	5	5	56
VtC:VETAL-----	100	3e-	3e	Prime farmland if irrigated	B	Silty - Veg. Zone 3		.28	.28	5	5	56
WeB:WEWELA-----	100	3e-	3e	Not prime farmland	B	Silty - Veg. Zone 3		.24	.24	3	3	86
WeC:WEWELA-----	100	3e-	3e	Not prime farmland	B	Silty - Veg. Zone 3		.24	.24	3	3	86
zwa:WATER-----	100	N/A	N/A	Not prime farmland		Unspecified		---	---	-	---	---
zwb:WATER-----	100	N/A	N/A	Not prime farmland		Unspecified		---	---	-	---	---

RANGELAND PRODUCTIVITY
Keya Paha County, Nebraska

Use and Explanation of Rangeland, Grazed Forest Land, Native Pastureland Interpretations

Information in this subsection can be used to plan the use and management of soils for rangeland, grazed forest land, and native pasture. Different kinds of soils vary in their capacity to produce native grasses and other plants suitable for grazing. Information in this subsection provides groupings of similar soils and estimates of potential forage production, which can be used to determine livestock stocking rates.

Rangeland. Range is land on which the native vegetation (climax or natural potential plant community) is predominantly grasses, grasslike plants, forbs, and shrubs suitable for grazing and browsing. Range includes natural grasslands, savannas, many wetlands, some deserts, tundra, and certain shrub and forb communities. Rangeland receives no regular or frequent cultural treatment. The composition and production of the plant community are determined by soil, climate, topography, overstory canopy, and grazing management.

Grazed Forest Land. Includes land on which the understory includes, as an integral part of the forest plant community, plants that can be grazed without significantly impairing other forest values.

Native Pasture. Includes land on which the native vegetation (climax or natural potential plant community) is forest but which is used and managed primarily for production of native plants for forage. Native pasture includes cut-over forest land and forest land cleared and now managed for native or naturalized forage plants.

Rangeland

In areas that have similar climate and topography, differences in the kind and amount of vegetation produced on rangeland are closely related to the kind of soil. Effective management based on the relationship between the soils and vegetation and water.

The Rangeland, Grazed Forest land, Native Pastureland Interpretations shows, for each soil that supports rangeland vegetation, the ecological site and the potential annual production of vegetation in favorable, normal, unfavorable years. An explanation of the column headings in this table follows.

An ecological site is the product of all the environmental factors responsible for its development. It has characteristic soils that have developed over time throughout the soil development process; a characteristic hydrology, particularly infiltration and runoff, that has developed over time; and a characteristic plant community (kind and amount of vegetation). The hydrology of a site is influenced by development of the soil and plant community. The vegetation, soils, and hydrology are all interrelated. Each is influenced by the others and influences the development of the others. The plant community on an ecological site is typified by an association of species that differs from that of other ecological sites in the kind and/or proportion of species or in total production. Descriptions of ecological sites are provided in the Field Office Technical Guide, which is available in local offices of the Natural Resources Conservation Service.

Total dry-weight production is the amount of vegetation that can be expected to grow annually on well managed rangeland that is supporting the potential natural plant community. It includes all vegetation, whether or not it is palatable to grazing animals. It includes the current year's growth of leaves, twigs, and fruits of woody plants. It does not include the increase in stem diameter of trees and shrubs. It is expressed in pounds per acre of air-dry vegetation for favorable, average, and unfavorable years. In a favorable year, the amount and distribution of precipitation and the temperatures make growing conditions substantially better than average. In a normal year, growing conditions are about average. In an unfavorable year, growing conditions are well below average, generally because of low available soil moisture. Yields are adjusted to a common percent of air-dry moisture content.

Range management requires a knowledge of the kinds of soil and of the potential natural plant community. It also requires an evaluation of the present range similarity index and rangeland trend. Range similarity index is determined by comparing the present plant community with the potential natural plant community on a particular rangeland ecological site. The more closely the existing community resembles the potential community, the higher the range similarity index. Rangeland trend is defined as the direction of change in an existing plant community relative to the potential natural plant community. Further information about the range similarity index and rangeland trend is available in chapter 4 of the National Range and Pasture Handbook, which is available in local offices of the Natural Resources Conservation Service. The objective in range management is to control grazing so that the plants growing on a site are about the same in kind and amount as the potential natural plant community for that site. Such management generally results in the optimum production of vegetation, control of undesirable brush species, conservation of water, and control of erosion. Sometimes, however, an area with a range similarity index somewhat below the potential meets grazing needs, provides wildlife habitat, and protects soil and water resources.

RANGELAND PRODUCTIVITY--Continued
Keya Paha County, Nebraska

(Only the soils that support rangeland vegetation suitable for grazing are rated.) Refer to range site description to determine the percentage allowable of grasses, forbs, and shrubs for the range ecological site.

Map symbol and soil name	Ecological site	Total dry-weight production		
		Favorable year	Average year	Unfavorable year
		Lb/acre	Lb/acre	Lb/acre
Ab:				
Albaton Variant-----	Clayey Overflow - Veg. Zone 3	3,200	2,700	2,200
AmB:				
Anselmo-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
An:				
Anselmo-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
AnC:				
Anselmo-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
Ba:				
Barney-----	Wet Land - Veg. Zone 3	6,000	5,400	5,000
Bo:				
Boel-----	Subirrigated - Veg. Zone 3	5,200	4,900	4,600
Bt:				
Brocksburg-----	Silty - Veg. Zone 3	3,700	3,200	2,700
Cb:				
Cass-----	Sandy Lowland - Veg. Zone 3	4,500	4,200	3,800
CcB:				
Cass-----	Sandy Lowland - Veg. Zone 3	4,500	4,200	3,800
DdB:				
Duda-----	Sandy - Veg. Zone 3	3,500	2,900	2,200
DdC:				
Duda-----	Sandy - Veg. Zone 3	3,500	2,900	2,200
DuB:				
Dunday-----	Sandy - Veg. Zone 3	3,300	3,000	2,600
DxB:				
Dunday-----	Sandy - Veg. Zone 3	3,300	3,000	2,600
Duda-----	Sandy - Veg. Zone 3	3,500	2,900	2,200
Eo:				
Els-----	Subirrigated - Veg. Zone 3	5,500	5,300	5,000
Es:				
Elsmere-----	Subirrigated - Veg. Zone 3	5,500	5,300	5,000
Ho:				
Holt-----	Sandy - Veg. Zone 3	3,100	2,600	1,800
HoC:				
Holt-----	Sandy - Veg. Zone 3	3,100	2,600	1,800
HtC:				
Holt-----	Sandy - Veg. Zone 3	3,100	2,600	1,800
Longpine-----	Shallow Limy - Veg. Zone 3	2,100	1,800	1,600
HtD:				
Holt-----	Sandy - Veg. Zone 3	3,100	2,600	1,800
Longpine-----	Shallow Limy - Veg. Zone 3	2,100	1,800	1,600
IfD:				
Inavale-----	Sands - Veg. Zone 3	3,300	2,800	2,200
IgB:				
Inavale-----	Sandy Lowland - Veg. Zone 3	3,300	2,800	2,200
IhB:				
Inavale-----	Sandy Lowland - Veg. Zone 3	3,500	3,000	2,200
IpB:				
Ipaga-----	Sandy Lowland - Veg. Zone 3	3,500	3,200	3,000
Ja:				
Jansen-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
Jn:				
Jansen-----	Silty - Veg. Zone 3	3,700	3,200	2,700
JnC:				
Jansen-----	Silty - Veg. Zone 3	3,700	3,200	2,700
JoB:				
Jansen-----	Silty - Veg. Zone 3	3,700	3,200	2,700
Meadin-----	Shallow To Gravel - Veg. Zone 3	2,500	2,000	1,200
LaD:				
Labu-----	Clayey - Veg. Zone 3	3,400	3,000	2,600
LcF:				
Labu-----	Clayey - Veg. Zone 3	3,400	3,000	2,600
Sansarc-----	Shallow Clay - Veg. Zone 3	2,500	2,100	1,500
Lo:				
Loup-----	Wet Subirrigated - Veg. Zone 3	5,800	5,500	5,300
Lp:				
Loup-----	Wet Land - Veg. Zone 3	6,000	5,800	5,500
MaB:				
Holt Variant-----	Sandy - Veg. Zone 3	3,500	3,000	2,200
MaC:				
Holt Variant-----	Sandy - Veg. Zone 3	3,500	3,000	2,200
MfC:				
Holt Variant-----	Sandy - Veg. Zone 3	3,500	3,000	2,200
MkG:				
Mariaville-----	Shallow Limy - Veg. Zone 3	2,300	2,000	1,800
Keota-----	Limy Upland - Veg. Zone 3	1,300	700	200
Mm:				
Marlake-----	---	---	---	---
MnF:				
Meadin-----	Shallow To Gravel - Veg. Zone 3	1,500	1,300	1,100
Mu:				
Munjor-----	Sandy Lowland - Veg. Zone 3	3,500	2,800	2,200
OaB:				

RANGELAND PRODUCTIVITY--Continued
Keya Paha County, Nebraska

(Only the soils that support rangeland vegetation suitable for grazing are rated.) Refer to range site description to determine the percentage allowable of grasses, forbs, and shrubs for the range ecological site.

Map symbol and soil name	Ecological site	Total dry-weight production		
		Favorable year	Average year	Unfavorable year
		Lb/acre	Lb/acre	Lb/acre
O'Neill-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
Oe:-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
OeC:-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
O'Neill-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
OeD:-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
O'Neill-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
OhB:-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
O'Neill-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
Meadin-----	Shallow To Gravel - Veg. Zone 3	1,500	1,300	1,100
OkD:-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
O'Neill-----	Sands - Veg. Zone 3	3,000	2,600	2,200
Valentine-----	Sands - Veg. Zone 3	3,000	2,600	2,200
On:-----	Silty - Veg. Zone 3	3,200	2,800	2,000
Onita-----	Silty - Veg. Zone 3	3,200	2,800	2,000
Or:-----	Subirrigated - Veg. Zone 3	5,500	5,300	5,000
Ord-----	Wet Subirrigated - Veg. Zone 3	5,800	5,500	5,300
Loup-----	Wet Subirrigated - Veg. Zone 3	5,800	5,500	5,300
Pf:-----	Silty - Veg. Zone 3	3,500	3,300	3,000
Paka-----	Silty - Veg. Zone 3	3,500	3,300	3,000
Ph:-----	Silty - Veg. Zone 3	4,000	3,600	3,300
Paka-----	Silty - Veg. Zone 3	4,000	3,600	3,300
PhB:-----	Silty - Veg. Zone 3	4,000	3,600	3,300
Paka-----	Silty - Veg. Zone 3	4,000	3,600	3,300
Perched Wt-----	---	---	---	---
PmC:-----	Silty - Veg. Zone 3	4,000	3,600	3,300
Paka-----	Shallow Limy - Veg. Zone 3	2,300	2,000	1,800
Mariaville-----	Shallow Limy - Veg. Zone 3	2,300	2,000	1,800
PmF:-----	Silty - Veg. Zone 3	4,000	3,600	3,300
Paka-----	Shallow Limy - Veg. Zone 3	2,300	2,000	1,800
Mariaville-----	Shallow Limy - Veg. Zone 3	2,300	2,000	1,800
RaB:-----	Silty - Veg. Zone 3	4,000	3,200	2,200
Ree-----	Silty - Veg. Zone 3	4,000	3,200	2,200
Rb:-----	Silty - Veg. Zone 3	3,500	2,800	1,700
Ree-----	Silty - Veg. Zone 3	3,500	2,800	1,700
ReC:-----	Silty - Veg. Zone 3	4,000	3,200	2,200
Reliance-----	Silty - Veg. Zone 3	4,000	3,200	2,200
Rod:-----	Sandy - Veg. Zone 3	3,100	2,600	1,800
Ronson-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
Anselmo-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
RoF:-----	Sandy - Veg. Zone 3	3,100	2,600	1,800
Ronson-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
Anselmo-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
RtB:-----	Sandy - Veg. Zone 3	3,100	2,600	1,800
Ronson-----	Shallow Limy - Veg. Zone 3	2,100	1,800	1,600
Longpine-----	Shallow Limy - Veg. Zone 3	2,100	1,800	1,600
SaG:-----	Shallow Clay - Veg. Zone 3	2,500	2,100	1,500
Sansarc-----	Shallow Clay - Veg. Zone 3	2,500	2,100	1,500
ScF:-----	Shallow To Gravel - Veg. Zone 3	1,400	1,200	700
Schamber-----	Shallow To Gravel - Veg. Zone 3	1,400	1,200	700
SmF:-----	Shallow To Gravel - Veg. Zone 3	1,400	1,200	700
Simeon-----	Shallow To Gravel - Veg. Zone 3	1,400	1,200	700
Holt Variant-----	Sandy - Veg. Zone 3	3,500	3,000	2,200
Ronson-----	Sandy - Veg. Zone 3	3,100	2,600	1,800
SvF2:-----	Shallow To Gravel - Veg. Zone 3	1,400	1,200	700
Simeon-----	Shallow To Gravel - Veg. Zone 3	1,400	1,200	700
Valentine-----	Sands - Veg. Zone 3	3,000	2,600	2,200
SwB:-----	Shallow To Gravel - Veg. Zone 3	1,800	1,600	1,100
Simeon-----	Shallow To Gravel - Veg. Zone 3	1,800	1,600	1,100
Valentine-----	Sandy - Veg. Zone 3	3,300	3,000	2,600
TaF:-----	Shallow Limy - Veg. Zone 3	2,100	1,800	1,600
Longpine-----	Shallow Limy - Veg. Zone 3	2,100	1,800	1,600
TdE:-----	Shallow Limy - Veg. Zone 3	2,100	1,800	1,600
Longpine-----	Shallow Limy - Veg. Zone 3	2,100	1,800	1,600
Duda-----	Sandy - Veg. Zone 3	3,500	2,900	2,200
Wt At 0-1 Foot-----	---	---	---	---
TrG:-----	Shallow Limy - Veg. Zone 3	2,100	1,800	1,600
Longpine-----	Sandy - Veg. Zone 3	3,100	2,600	1,800
Ronson-----	Savannah - Veg. Zone 3	3,500	2,900	2,200
Duda-----	Savannah - Veg. Zone 3	3,500	2,900	2,200
Tu:-----	Silty - Veg. Zone 3	3,300	2,500	1,700
Hennings-----	Silty - Veg. Zone 3	3,300	2,500	1,700
VaF:-----	Sands - Veg. Zone 3	3,000	2,600	2,200
Valentine-----	Sands - Veg. Zone 3	3,000	2,600	2,200
VaG:-----	Choppy Sands - Veg. Zone 3	2,800	2,400	2,000
Valentine-----	Choppy Sands - Veg. Zone 3	2,800	2,400	2,000
VbD:-----	Sands - Veg. Zone 3	3,000	2,600	2,200
Valentine-----	Sands - Veg. Zone 3	3,000	2,600	2,200
VcF:-----	Sands - Veg. Zone 3	3,000	2,600	2,200
Valentine-----	Sands - Veg. Zone 3	3,000	2,600	2,200

RANGELAND PRODUCTIVITY--Continued
Keya Paha County, Nebraska

(Only the soils that support rangeland vegetation suitable for grazing are rated.) Refer to range site description to determine the percentage allowable of grasses, forbs, and shrubs for the range ecological site.

Map symbol and soil name	Ecological site	Total dry-weight production		
		Favorable year	Average year	Unfavorable year
		Lb/acre	Lb/acre	Lb/acre
Longpine-----	Shallow Limy - Veg. Zone 3	2,100	1,800	1,600
VdC:				
Valentine-----	Sands - Veg. Zone 3	3,000	2,600	2,200
Valentine-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
Wewela-----	Sandy - Veg. Zone 3	3,100	2,700	2,000
VdF:				
Valentine-----	Sands - Veg. Zone 3	3,000	2,600	2,200
Valentine-----	Sandy - Veg. Zone 3	3,500	3,300	3,000
Wewela-----	Sandy - Veg. Zone 3	3,100	2,700	2,000
Ve:				
Verdel-----	Clayey - Veg. Zone 3	3,800	3,400	3,000
VeB:				
Verdel-----	Clayey - Veg. Zone 3	3,800	3,400	3,000
VeC:				
Verdel-----	Clayey - Veg. Zone 3	3,800	3,400	3,000
Vo:				
Vetal-----	Sandy - Veg. Zone 3	3,000	2,300	1,700
Vt:				
Vetal-----	Silty - Veg. Zone 3	3,000	2,300	1,700
VtB:				
Vetal-----	Silty - Veg. Zone 3	3,000	2,300	1,700
VtC:				
Vetal-----	Silty - Veg. Zone 3	3,000	2,300	1,700
WeB:				
Wewela-----	Silty - Veg. Zone 3	3,600	3,000	2,100
WeC:				
Wewela-----	Silty - Veg. Zone 3	3,600	3,000	2,100
zwa:				
Water-----	---	---	---	---
zwb:				
Water-----	---	---	---	---

BUILDING SITE DEVELOPMENT
Keya Paha County, Nebraska

Building Site Development

Soil properties influence the development of building sites, including the selection of the site, the design of the structure, construction, performance after construction, and maintenance. These tables show the degree and kind of soil limitations that affect dwellings with and without basements, small commercial buildings, local roads and streets, shallow excavations, and lawns and landscaping.

The ratings in the tables are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect building site development. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slightly limited indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Dwellings are single-family houses of three stories or less. For dwellings without basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. For dwellings with basements, the foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of about 7 feet. The ratings for dwellings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility. Compressibility is inferred from the Unified classification. The properties that affect the ease and amount of excavation include depth to a water table, ponding, flooding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Small commercial buildings are structures that are less than three stories high and do not have basements. The foundation is assumed to consist of spread footings of reinforced concrete built on undisturbed soil at a depth of 2 feet or at the depth of maximum frost penetration, whichever is deeper. The ratings are based on the soil properties that affect the capacity of the soil to support a load without movement and on the properties that affect excavation and construction costs. The properties that affect the load-supporting capacity include depth to a water table, ponding, flooding, subsidence, linear extensibility (shrink-swell potential), and compressibility (which is inferred from the Unified classification). The properties that affect the ease and amount of excavation include flooding, depth to a water table, ponding, slope, depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, and the amount and size of rock fragments.

Local roads and streets have an all-weather surface and carry automobile and light truck traffic all year. They have a subgrade of cut or fill soil material; a base of gravel, crushed rock, or soil material stabilized by lime or cement; and a surface of flexible material (asphalt), rigid material (concrete), or gravel with a binder. The ratings are based on the soil properties that affect the ease of excavation and grading and the traffic-supporting capacity. The properties that affect the ease of excavation and grading are depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, depth to a water table, ponding, flooding, the amount of large stones, and slope. The properties that affect the traffic-supporting capacity are soil strength (as inferred from the AASHTO group index number), subsidence, linear extensibility (shrink-swell potential), the potential for frost action, depth to a water table, and ponding.

Shallow excavations are trenches or holes dug to a maximum depth of 5 or 6 feet for graves, utility lines, open ditches, or other purposes. The ratings are based on the soil properties that influence the ease of digging and the resistance to sloughing. Depth to bedrock or a cemented pan, hardness of bedrock or a cemented pan, the amount of large stones, and dense layers influence the ease of digging, filling, and compacting. Depth to the seasonal high water table, flooding, and ponding may restrict the period when excavations can be made. Slope influences the ease of using machinery. Soil texture, depth to the water table, and linear extensibility (shrink-swell potential) influence the resistance to sloughing.

Lawns and landscaping require soils on which turf and ornamental trees and shrubs can be established and maintained. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer.

BUILDING SITE DEVELOPMENT--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ab: Albaton Variant-----	100	Very limited Flooding Shrink-swell Depth to saturated zone	1.00 1.00 0.39	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Shrink-swell Depth to saturated zone	1.00 1.00 0.39
AmB: Anselmo-----	100	Not limited		Not limited		Not limited	
An: Anselmo-----	100	Not limited		Not limited		Not limited	
AnC: Anselmo-----	100	Not limited		Not limited		Somewhat limited Slope	0.00
Ba: Barney-----	100	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00
Bo: Boel-----	100	Very limited Flooding Depth to saturated zone	1.00 0.07	Very limited Flooding Depth to saturated zone	1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 0.07
Bt: Brocksburg-----	100	Somewhat limited Shrink-swell	0.00	Not limited		Somewhat limited Shrink-swell	0.00
Cb: Cass-----	100	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
CcB: Cass-----	100	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
DdB: Duda-----	100	Not limited		Somewhat limited Depth to soft bedrock	0.42	Not limited	
DdC: Duda-----	100	Not limited		Somewhat limited Depth to soft bedrock	0.42	Somewhat limited Slope	0.12
DuB: Dunday-----	100	Not limited		Not limited		Not limited	
DxB: Dunday-----	55	Not limited		Not limited		Not limited	
Duda-----	45	Not limited		Somewhat limited Depth to soft bedrock	0.42	Not limited	
Eo: Els-----	100	Somewhat limited Depth to saturated zone	0.07	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.07
Es: Elsmere-----	100	Somewhat limited Depth to saturated zone	0.07	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.07
Ho: Holt-----	100	Not limited		Somewhat limited Depth to soft bedrock	0.42	Not limited	
HoC: Holt-----	100	Not limited		Somewhat limited Depth to soft bedrock	0.42	Somewhat limited Slope	0.00
HtC: Holt-----	70	Not limited		Somewhat limited Depth to soft bedrock	0.42	Somewhat limited Slope	0.12
Longpine-----	30	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock	1.00	Somewhat limited Depth to soft bedrock Slope	1.00 0.12

BUILDING SITE DEVELOPMENT--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HtD: Holt-----	60	Somewhat limited Slope	0.04	Somewhat limited Depth to soft bedrock Slope	0.42	Very limited Slope	1.00
Longpine-----	40	Somewhat limited Depth to soft bedrock Slope	1.00	Very limited Depth to soft bedrock Slope	1.00	Very limited Depth to soft bedrock Slope	1.00
IfD: Inavale-----	100	Not limited		Not limited		Somewhat limited Slope	0.86
IgB: Inavale-----	100	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
IhB: Inavale-----	100	Not limited		Not limited		Not limited	
IpB: Ipage-----	100	Not limited		Somewhat limited Depth to saturated zone	0.61	Not limited	
Ja: Jansen-----	100	Somewhat limited Shrink-swell	0.50	Not limited		Somewhat limited Shrink-swell	0.50
Jn: Jansen-----	100	Somewhat limited Shrink-swell	0.50	Not limited		Somewhat limited Shrink-swell	0.50
JnC: Jansen-----	100	Somewhat limited Shrink-swell	0.50	Not limited		Somewhat limited Shrink-swell Slope	0.50 0.00
JoB: Jansen-----	60	Not limited		Not limited		Not limited	
Meadin-----	40	Not limited		Not limited		Not limited	
LaD: Labu-----	100	Very limited Shrink-swell Slope	1.00 0.04	Very limited Shrink-swell Depth to soft bedrock Slope	1.00 0.42 0.04	Very limited Shrink-swell Slope	1.00 1.00
LcF: Labu-----	60	Very limited Shrink-swell Slope	1.00 1.00	Very limited Shrink-swell Slope Depth to soft bedrock	1.00 1.00 0.42	Very limited Slope Shrink-swell	1.00 1.00
Sansarc-----	40	Very limited Shrink-swell Depth to soft bedrock Slope	1.00 1.00 1.00	Very limited Shrink-swell Depth to soft bedrock Slope	1.00 1.00 1.00	Very limited Slope Shrink-swell Depth to soft bedrock	1.00 1.00 1.00
Lo: Loup-----	100	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Lp: Loup-----	100	Very limited Ponding Depth to saturated zone	1.00 1.00	Very limited Ponding Depth to saturated zone	1.00 1.00	Very limited Ponding Depth to saturated zone	1.00 1.00
MaB: Holt Variant-----	100	Not limited		Not limited		Not limited	
MaC: Holt Variant-----	100	Not limited		Not limited		Somewhat limited Slope	0.12
MFC: Holt Variant-----	100	Not limited		Not limited		Somewhat limited Slope	0.00

BUILDING SITE DEVELOPMENT--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MkG: Mariaville-----	60	Very limited Depth to soft bedrock Slope	1.00 1.00	Very limited Depth to soft bedrock Slope	1.00 1.00	Very limited Slope Depth to soft bedrock	1.00 1.00
Keota-----	40	Very limited Slope	1.00	Very limited Slope Depth to soft bedrock	1.00 0.42	Very limited Slope	1.00
Mm: Marlake-----	100	Very limited Ponding Depth to saturated zone	1.00 1.00	Very limited Ponding Depth to saturated zone	1.00 1.00	Very limited Ponding Depth to saturated zone	1.00 1.00
MnF: Meadin-----	100	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Mu: Munyor-----	100	Very limited Flooding	1.00	Very limited Flooding	1.00	Very limited Flooding	1.00
OaB: O'Neill-----	100	Not limited		Not limited		Not limited	
Oe: O'Neill-----	100	Not limited		Not limited		Not limited	
OeC: O'Neill-----	100	Not limited		Not limited		Somewhat limited Slope	0.00
OeD: O'Neill-----	100	Somewhat limited Slope	0.00	Somewhat limited Slope	0.00	Very limited Slope	1.00
OhB: O'Neill-----	60	Not limited		Not limited		Not limited	
Meadin-----	40	Not limited		Not limited		Not limited	
OkD: O'Neill-----	60	Not limited		Not limited		Not limited	
Valentine-----	40	Not limited		Not limited		Somewhat limited Slope	0.48
On: Onita-----	100	Very limited Shrink-swell	1.00	Very limited Depth to saturated zone Shrink-swell	1.00 0.50	Very limited Shrink-swell	1.00
Or: Ord-----	70	Somewhat limited Depth to saturated zone	0.07	Very limited Depth to saturated zone	1.00	Somewhat limited Depth to saturated zone	0.07
Loup-----	30	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Pf: Paka-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
Ph: Paka-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
PhB: Paka-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
Perched Wt-----		Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
PmC: Paka-----	60	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell Slope	0.50 0.12
Mariaville-----	40	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock	1.00	Somewhat limited Depth to soft bedrock Slope	1.00 0.12
PmF: Paka-----	55	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50	Very limited Slope Shrink-swell	1.00 0.50
Mariaville-----	45	Very limited Depth to soft bedrock Slope	1.00 1.00	Very limited Depth to soft bedrock Slope	1.00 1.00	Very limited Slope Depth to soft bedrock	1.00 1.00

BUILDING SITE DEVELOPMENT--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
RaB: Ree-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
Rb: Ree-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell	0.50
ReC: Reliance-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell Slope	1.00 0.00
RoD: Ronson-----	55	Somewhat limited Slope	0.00	Somewhat limited Depth to soft bedrock Slope	0.42 0.00	Very limited Slope	1.00
Anselmo-----	45	Somewhat limited Slope	0.00	Somewhat limited Slope	0.00	Very limited Slope	1.00
RoF: Ronson-----	55	Very limited Slope	1.00	Very limited Slope Depth to soft bedrock	1.00 0.42	Very limited Slope	1.00
Anselmo-----	45	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Slope	1.00
RtB: Ronson-----	55	Not limited		Somewhat limited Depth to soft bedrock	0.42	Not limited	
Longpine-----	45	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock	1.00	Somewhat limited Depth to soft bedrock	1.00
SaG: Sansarc-----	100	Very limited Slope Shrink-swell Depth to soft bedrock	1.00 1.00 1.00	Very limited Slope Shrink-swell Depth to soft bedrock	1.00 1.00 1.00	Very limited Slope Shrink-swell Depth to soft bedrock	1.00 1.00 1.00
ScF: Schamber-----	100	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
SmF: Simeon-----	40	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Slope	1.00
Holt Variant-----	35	Somewhat limited Slope	0.00	Somewhat limited Slope	0.00	Very limited Slope	1.00
Ronson-----	25	Somewhat limited Slope	0.63	Somewhat limited Slope Depth to soft bedrock	0.63 0.42	Very limited Slope	1.00
SvF2: Simeon-----	60	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Slope	1.00
Valentine-----	40	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Slope	1.00
SwB: Simeon-----	65	Not limited		Not limited		Not limited	
Valentine-----	35	Not limited		Not limited		Not limited	
TaF: Longpine-----	100	Very limited Depth to soft bedrock Slope	1.00 1.00	Very limited Depth to soft bedrock Slope	1.00 1.00	Very limited Depth to soft bedrock Slope	1.00 1.00
TdE: Longpine-----	60	Somewhat limited Depth to soft bedrock Slope	1.00 0.04	Very limited Depth to soft bedrock Slope	1.00 0.04	Very limited Depth to soft bedrock Slope	1.00 1.00
Duda-----	40	Somewhat limited Slope	0.37	Somewhat limited Depth to soft bedrock Slope	0.42 0.37	Very limited Slope	1.00
Wt At 0-1 Foot-----		Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

BUILDING SITE DEVELOPMENT--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TrG:							
Longpine-----	40	Very limited Slope Depth to soft bedrock	1.00 1.00	Very limited Slope Depth to soft bedrock	1.00 1.00	Very limited Slope Depth to soft bedrock	1.00 1.00
Ronson-----	35	Very limited Slope	1.00	Very limited Slope Depth to soft bedrock	1.00 0.42	Very limited Slope	1.00
Duda-----	25	Very limited Slope	1.00	Very limited Slope Depth to soft bedrock	1.00 0.42	Very limited Slope	1.00
Tu:							
Hennings-----	100	Not limited		Not limited		Not limited	
VaF:							
Valentine-----	100	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
VaG:							
Valentine-----	100	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
VbD:							
Valentine-----	100	Not limited		Not limited		Somewhat limited Slope	0.48
VcF:							
Valentine-----	75	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Slope	1.00
Longpine-----	25	Somewhat limited Depth to soft bedrock Slope	1.00 0.63	Very limited Depth to soft bedrock Slope	1.00 0.63	Very limited Depth to soft bedrock Slope	1.00 1.00
VdC:							
Valentine-----	40	Not limited		Not limited		Somewhat limited Slope	0.12
Valentine-----	30	Not limited		Somewhat limited Depth to saturated zone	0.61	Somewhat limited Slope	0.12
Wewela-----	30	Somewhat limited Shrink-swell	0.50	Somewhat limited Shrink-swell Depth to soft bedrock	0.50 0.42	Somewhat limited Shrink-swell Slope	0.50 0.12
VdF:							
Valentine-----	40	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Valentine-----	30	Very limited Slope	1.00	Very limited Slope Depth to saturated zone	1.00 0.61	Very limited Slope	1.00
Wewela-----	30	Somewhat limited Slope	0.00	Somewhat limited Depth to soft bedrock Slope	0.42 0.00	Very limited Slope	1.00
Ve:							
Verdel-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
VeB:							
Verdel-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00
VeC:							
Verdel-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell	1.00	Very limited Shrink-swell Slope	1.00 0.12
Vo:							
Vetal-----	100	Not limited		Not limited		Not limited	
Vt:							
Vetal-----	100	Not limited		Not limited		Not limited	
VtB:							
Vetal-----	100	Not limited		Not limited		Not limited	
VtC:							
Vetal-----	100	Not limited		Not limited		Somewhat limited Slope	0.12
WeB:							
Wewela-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to soft bedrock	1.00 0.42	Very limited Shrink-swell	1.00

BUILDING SITE DEVELOPMENT--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Dwellings without basements		Dwellings with basements		Small commercial buildings	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
WeC: Wewela-----	100	Very limited Shrink-swell	1.00	Very limited Shrink-swell Depth to soft bedrock	1.00 0.42	Very limited Shrink-swell Slope	1.00 0.12
zwa: Water-----	100	Not rated		Not rated		Not rated	
zwb: Water-----	100	Not rated		Not rated		Not rated	

BUILDING SITE DEVELOPMENT--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ab: Albaton Variant-----	100	Very limited Shrink-swell Frost action Flooding Depth to saturated zone	1.00 1.00 1.00 0.19	Very limited Cutbanks cave Depth to saturated zone Flooding Too clayey	1.00 1.00 0.60 0.28	Very limited Too clayey Flooding Depth to saturated zone	1.00 0.60 0.19
AmB: Anselmo-----	100	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Not limited	
An: Anselmo-----	100	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Not limited	
AnC: Anselmo-----	100	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Not limited	
Ba: Barney-----	100	Very limited Depth to saturated zone Flooding Frost action	1.00 1.00 0.50	Very limited Depth to saturated zone Cutbanks cave Flooding Depth to dense layer	1.00 1.00 1.00 0.80 0.50	Very limited Flooding Depth to saturated zone	1.00 1.00
Bo: Boel-----	100	Very limited Flooding Frost action Depth to saturated zone	1.00 0.50 0.03	Very limited Cutbanks cave Depth to saturated zone Flooding	1.00 1.00 0.60	Somewhat limited Flooding Depth to saturated zone Droughty	0.60 0.03 0.02
Bt: Brocksburg-----	100	Somewhat limited Frost action Shrink-swell	0.50 0.00	Very limited Cutbanks cave	1.00	Not limited	
Cb: Cass-----	100	Somewhat limited Frost action Flooding	0.50 0.40	Very limited Cutbanks cave	1.00	Not limited	
CcB: Cass-----	100	Very limited Flooding Frost action	1.00 0.50	Very limited Cutbanks cave Flooding	1.00 0.80	Very limited Flooding	1.00
DdB: Duda-----	100	Not limited		Very limited Cutbanks cave Depth to soft bedrock	1.00 0.42	Somewhat limited Droughty Depth to bedrock	0.91 0.42
DdC: Duda-----	100	Not limited		Very limited Cutbanks cave Depth to soft bedrock	1.00 0.42	Somewhat limited Droughty Depth to bedrock	0.91 0.42
DuB: Dunday-----	100	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.07
DxB: Dunday-----	55	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.07
Duda-----	45	Not limited		Very limited Cutbanks cave Depth to soft bedrock	1.00 0.42	Somewhat limited Droughty Depth to bedrock	0.91 0.42
EO: Els-----	100	Somewhat limited Frost action Depth to saturated zone	0.50 0.03	Very limited Cutbanks cave Depth to saturated zone	1.00 1.00	Somewhat limited Droughty Depth to saturated zone	0.73 0.03
Es: Elsmere-----	100	Somewhat limited Frost action Depth to saturated zone	0.50 0.03	Very limited Cutbanks cave Depth to saturated zone	1.00 1.00	Somewhat limited Droughty Depth to saturated zone	0.21 0.03

BUILDING SITE DEVELOPMENT--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ho: Holt-----	100	Somewhat limited Frost action	0.50	Very limited Cutbanks cave Depth to soft bedrock	1.00 0.42	Somewhat limited Depth to bedrock	0.42
HoC: Holt-----	100	Somewhat limited Frost action	0.50	Somewhat limited Depth to soft bedrock Cutbanks cave	0.42 0.10	Somewhat limited Depth to bedrock	0.42
HtC: Holt-----	70	Somewhat limited Frost action	0.50	Very limited Cutbanks cave Depth to soft bedrock	1.00 0.42	Somewhat limited Depth to bedrock	0.42
Longpine-----	30	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock Cutbanks cave	1.00 0.10	Very limited Depth to bedrock	1.00
HtD: Holt-----	60	Somewhat limited Frost action	0.50	Somewhat limited Depth to soft bedrock	0.42	Somewhat limited Depth to bedrock	0.42
		Slope	0.04	Cutbanks cave Slope	0.10 0.04	Slope	0.04
Longpine-----	40	Somewhat limited Depth to soft bedrock Slope	1.00 0.04	Very limited Depth to soft bedrock Cutbanks cave Slope	1.00 0.10 0.04	Very limited Depth to bedrock Droughty Slope	1.00 1.00 0.04
IFD: Inavale-----	100	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.21
IgB: Inavale-----	100	Very limited Flooding	1.00	Very limited Cutbanks cave Flooding	1.00 0.80	Very limited Flooding Droughty	1.00 0.21
IhB: Inavale-----	100	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.16
IpB: Ipage-----	100	Somewhat limited Frost action	0.50	Very limited Cutbanks cave Depth to saturated zone	1.00 0.61	Somewhat limited Droughty	0.48
Ja: Jansen-----	100	Somewhat limited Shrink-swell Frost action	0.50 0.50	Very limited Cutbanks cave	1.00	Not limited	
Jn: Jansen-----	100	Somewhat limited Shrink-swell Frost action	0.50 0.50	Very limited Cutbanks cave	1.00	Not limited	
JnC: Jansen-----	100	Somewhat limited Shrink-swell Frost action	0.50 0.50	Very limited Cutbanks cave	1.00	Not limited	
JoB: Jansen-----	60	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Not limited	
Meadin-----	40	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.06
LaD: Labu-----	100	Very limited Shrink-swell Slope	1.00 0.04	Somewhat limited Too clayey Depth to soft bedrock Cutbanks cave Slope	0.72 0.42 0.10 0.04	Very limited Too clayey Depth to bedrock Droughty Slope	1.00 0.42 0.20 0.04

BUILDING SITE DEVELOPMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LcF: Labu-----	60	Very limited Shrink-swell Slope	1.00 1.00	Very limited Slope Too clayey Depth to soft bedrock	1.00 0.72 0.42	Very limited Too clayey Slope Depth to bedrock	1.00 1.00 0.42
Sansarc-----	40	Very limited Shrink-swell Depth to soft bedrock Low strength Slope	1.00 1.00 1.00 1.00	Very limited Depth to soft bedrock Too clayey Slope Cutbanks cave	1.00 1.00 1.00 1.00 1.00 0.10	Droughty Very limited Too clayey Depth to bedrock Droughty Slope	0.20 1.00 1.00 1.00 1.00 1.00
Lo: Loup-----	100	Very limited Depth to saturated zone Frost action	1.00 0.50	Very limited Depth to saturated zone Cutbanks cave	1.00 1.00	Very limited Depth to saturated zone Droughty	1.00 0.01
Lp: Loup-----	100	Very limited Ponding Depth to saturated zone Frost action	1.00 1.00 0.50	Very limited Ponding Depth to saturated zone Cutbanks cave	1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Droughty	1.00 1.00 0.01
MaB: Holt Variant-----	100	Somewhat limited Frost action	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
MaC: Holt Variant-----	100	Somewhat limited Frost action	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
MfC: Holt Variant-----	100	Somewhat limited Frost action	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
MkG: Mariaville-----	60	Very limited Depth to soft bedrock Slope Frost action	1.00 1.00 0.50	Very limited Depth to soft bedrock Slope Cutbanks cave	1.00 1.00 0.10	Very limited Depth to bedrock Slope Droughty	1.00 1.00 0.41
Keota-----	40	Very limited Slope	1.00	Very limited Slope Depth to soft bedrock Cutbanks cave	1.00 0.42 0.10	Very limited Slope Depth to bedrock	1.00 0.42
Mm: Marlake-----	100	Very limited Ponding Depth to saturated zone Frost action	1.00 1.00 0.50	Very limited Ponding Depth to saturated zone Cutbanks cave	1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Droughty	1.00 1.00 0.05
MnF: Meadin-----	100	Very limited Slope	1.00	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope Droughty Gravel content	1.00 0.33 0.08
Mu: Munjoy-----	100	Somewhat limited Flooding	0.40	Very limited Cutbanks cave	1.00	Not limited	
OaB: O'Neill-----	100	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.00
Oe: O'Neill-----	100	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.08
OeC: O'Neill-----	100	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.08
OeD: O'Neill-----	100	Somewhat limited Frost action Slope	0.50 0.00	Very limited Cutbanks cave Slope	1.00 0.00	Somewhat limited Droughty Slope	0.08 0.00
OhB: O'Neill-----	60	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.02
Meadin-----	40	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.73

BUILDING SITE DEVELOPMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OkD: O'Neill-----	60	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.25
Valentine-----	40	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.67
On: Onita-----	100	Very limited Shrink-swell	1.00	Very limited Depth to saturated zone	1.00	Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
Or: Ord-----	70	Very limited Frost action	1.00	Very limited Cutbanks cave	1.00	Somewhat limited Depth to saturated zone	0.03
		Depth to saturated zone	0.03	Depth to saturated zone	1.00		
Loup-----	30	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
		Frost action	0.50	Cutbanks cave	1.00		
Pf: Paka-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
		Frost action	0.50				
Ph: Paka-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
		Frost action	0.50				
PhB: Paka-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
		Frost action	0.50				
Perched Wt-----		Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Low strength	1.00	Cutbanks cave	0.10		
PmC: Paka-----	60	Somewhat limited Shrink-swell	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
		Frost action	0.50				
Mariaville-----	40	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock	1.00	Very limited Depth to bedrock	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.44
PmF: Paka-----	55	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Shrink-swell	0.50	Cutbanks cave	0.10		
		Frost action	0.50				
Mariaville-----	45	Very limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock	1.00	Very limited Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Frost action	0.50	Cutbanks cave	0.10	Droughty	0.44
RaB: Ree-----	100	Somewhat limited Shrink-swell	0.50	Very limited Cutbanks cave	1.00	Not limited	
		Frost action	0.50				
Rb: Ree-----	100	Somewhat limited Shrink-swell	0.50	Somewhat limited Too clayey	0.88	Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
ReC: Reliance-----	100	Very limited Shrink-swell	1.00	Very limited Cutbanks cave	1.00	Not limited	
RoD: Ronson-----	55	Somewhat limited Frost action	0.50	Somewhat limited Depth to soft bedrock	0.42	Somewhat limited Depth to bedrock	0.42
		Slope	0.00	Cutbanks cave	0.10	Droughty	0.24
				Slope	0.00	Slope	0.00
Anselmo-----	45	Somewhat limited Frost action	0.50	Somewhat limited Cutbanks cave	0.10	Somewhat limited Slope	0.00
		Slope	0.00	Slope	0.00		

BUILDING SITE DEVELOPMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
RoF: Ronson-----	55	Very limited Slope Frost action	1.00 0.50	Very limited Slope Depth to soft bedrock Cutbanks cave	1.00 0.42 0.10	Very limited Slope Depth to bedrock Droughty	1.00 0.42 0.24
Anselmo-----	45	Somewhat limited Slope Frost action	0.84 0.50	Somewhat limited Slope Cutbanks cave	0.84 0.10	Somewhat limited Slope	0.84
RtB: Ronson-----	55	Somewhat limited Frost action	0.50	Somewhat limited Depth to soft bedrock Cutbanks cave	0.42 0.10	Somewhat limited Depth to bedrock Droughty	0.42 0.24
Longpine-----	45	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock Cutbanks cave	1.00 0.10	Very limited Depth to bedrock Droughty	1.00 1.00
SaG: Sansarc-----	100	Very limited Shrink-swell Slope Depth to soft bedrock Low strength	1.00 1.00 1.00 1.00	Very limited Depth to soft bedrock Slope Too clayey Cutbanks cave	1.00 1.00 1.00 0.10	Very limited Too clayey Depth to bedrock Slope Droughty	1.00 1.00 1.00 1.00
ScF: Schamber-----	100	Very limited Slope	1.00	Very limited Cutbanks cave Slope	1.00 1.00	Very limited Slope Droughty Gravel content	1.00 1.00 0.38
SmF: Simeon-----	40	Somewhat limited Slope	0.63	Very limited Cutbanks cave Slope	1.00 0.63	Somewhat limited Slope Droughty	0.63 0.11
Holt Variant-----	35	Somewhat limited Frost action Slope	0.50 0.00	Somewhat limited Cutbanks cave Slope	0.10 0.00	Somewhat limited Droughty Slope	0.33 0.00
Ronson-----	25	Somewhat limited Slope Frost action	0.63 0.50	Somewhat limited Slope Depth to soft bedrock Cutbanks cave	0.63 0.42 0.10	Somewhat limited Slope Droughty Depth to bedrock	0.63 0.57 0.42
SvF2: Simeon-----	60	Somewhat limited Slope	0.63	Very limited Cutbanks cave Slope	1.00 0.63	Somewhat limited Slope Droughty	0.63 0.28
Valentine-----	40	Somewhat limited Slope	0.63	Very limited Cutbanks cave Slope	1.00 0.63	Somewhat limited Droughty Slope	0.86 0.63
SwB: Simeon-----	65	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.04
Valentine-----	35	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.76
TaF: Longpine-----	100	Very limited Depth to soft bedrock Slope	1.00 1.00	Very limited Depth to soft bedrock Slope Cutbanks cave	1.00 1.00 0.10	Very limited Depth to bedrock Droughty Slope	1.00 1.00 1.00
TdE: Longpine-----	60	Somewhat limited Depth to soft bedrock Slope	1.00 0.04	Very limited Depth to soft bedrock Cutbanks cave Slope	1.00 0.10 0.04	Very limited Depth to bedrock Droughty Slope	1.00 1.00 0.04
Duda-----	40	Somewhat limited Slope	0.37	Very limited Cutbanks cave Depth to soft bedrock Slope	1.00 0.42 0.37	Somewhat limited Droughty Depth to bedrock Slope	0.62 0.42 0.37
Wt At 0-1 Foot-----		Very limited Slope Low strength	1.00 1.00	Very limited Slope Cutbanks cave	1.00 0.10	Very limited Slope	1.00

BUILDING SITE DEVELOPMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TrG: Longpine-----	40	Very limited Slope	1.00	Very limited Depth to soft bedrock	1.00	Very limited Depth to bedrock	1.00
		Depth to soft bedrock	1.00	Slope	1.00	Slope	1.00
Ronson-----	35	Very limited Slope	1.00	Cutbanks cave	0.10	Droughty	1.00
		Frost action	0.50	Very limited Slope	1.00	Very limited Slope	1.00
				Depth to soft bedrock	0.42	Depth to bedrock	0.42
Duda-----	25	Very limited Slope	1.00	Cutbanks cave	0.10	Droughty	0.01
				Very limited Cutbanks cave	1.00	Very limited Slope	1.00
				Slope	1.00	Depth to bedrock	0.42
				Depth to soft bedrock	0.42	Droughty	0.23
Tu: Hennings-----	100	Not limited		Very limited Cutbanks cave	1.00	Not limited	
VaF: Valentine-----	100	Very limited Slope	1.00	Very limited Cutbanks cave	1.00	Very limited Slope	1.00
				Slope	1.00	Droughty	0.86
VaG: Valentine-----	100	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
				Cutbanks cave	1.00	Droughty	0.89
VbD: Valentine-----	100	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.79
VcF: Valentine-----	75	Somewhat limited Slope	0.63	Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.83
				Slope	0.63	Slope	0.63
Longpine-----	25	Somewhat limited Depth to soft bedrock	1.00	Very limited Depth to soft bedrock	1.00	Very limited Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Droughty	1.00
				Cutbanks cave	0.10	Slope	0.63
VdC: Valentine-----	40	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.79
Valentine-----	30	Not limited		Very limited Cutbanks cave	1.00	Somewhat limited Droughty	0.05
				Too clayey	0.72		
				Depth to saturated zone	0.61		
Wewela-----	30	Somewhat limited Shrink-swell	0.50	Somewhat limited Too clayey	0.50	Somewhat limited Depth to bedrock	0.42
		Frost action	0.50	Depth to soft bedrock	0.42	Droughty	0.03
				Cutbanks cave	0.10		
VdF: Valentine-----	40	Very limited Slope	1.00	Very limited Cutbanks cave	1.00	Very limited Slope	1.00
				Slope	1.00	Droughty	0.97
Valentine-----	30	Very limited Slope	1.00	Very limited Cutbanks cave	1.00	Very limited Slope	1.00
				Slope	1.00	Droughty	0.03
				Too clayey	0.72		
				Depth to saturated zone	0.61		
Wewela-----	30	Somewhat limited Frost action	0.50	Somewhat limited Too clayey	0.50	Somewhat limited Depth to bedrock	0.42
		Slope	0.00	Depth to soft bedrock	0.42	Droughty	0.09
				Cutbanks cave	0.10	Slope	0.00
				Slope	0.00		
Ve: Verdel-----	100	Very limited Shrink-swell	1.00	Somewhat limited Too clayey	0.50	Not limited	
		Frost action	0.50	Cutbanks cave	0.10		
VeB: Verdel-----	100	Very limited Shrink-swell	1.00	Somewhat limited Too clayey	0.50	Not limited	
		Frost action	0.50	Cutbanks cave	0.10		

BUILDING SITE DEVELOPMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Local roads and streets		Shallow excavations		Lawns and landscaping	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
VeC: Verdel-----	100	Very limited Shrink-swell Frost action	1.00 0.50	Somewhat limited Too clayey Cutbanks cave	0.50 0.10	Not limited	
Vo: Vetal-----	100	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Not limited	
Vt: Vetal-----	100	Somewhat limited Frost action	0.50	Very limited Cutbanks cave	1.00	Not limited	
VtB: Vetal-----	100	Somewhat limited Frost action	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
VtC: Vetal-----	100	Somewhat limited Frost action	0.50	Somewhat limited Cutbanks cave	0.10	Not limited	
WeB: Wewela-----	100	Very limited Shrink-swell Frost action	1.00 0.50	Somewhat limited Too clayey Depth to soft bedrock Cutbanks cave	0.50 0.42 0.10	Somewhat limited Depth to bedrock	0.42
WeC: Wewela-----	100	Very limited Shrink-swell Frost action	1.00 0.50	Somewhat limited Too clayey Depth to soft bedrock Cutbanks cave	0.50 0.42 0.10	Somewhat limited Depth to bedrock	0.42
zwa: Water-----	100	Not rated		Not rated		Not rated	
zwb: Water-----	100	Not rated		Not rated		Not rated	

CONSTRUCTION MATERIALS
Keya Paha County, Nebraska

Construction Materials

These tables give information about the soils as potential sources of gravel, sand, topsoil, reclamation material, and roadfill. Normal compaction, minor processing, and other standard construction practices are assumed.

The soils are rated good, fair, or poor as potential sources of topsoil, reclamation material, and roadfill. The features that limit the soils as sources of these materials are specified in the tables. The numerical ratings given after the specified features indicate the degree to which the features limit the soils as sources of topsoil, reclamation material, or roadfill. The lower the number, the greater the limitation.

The soils are rated as a probable or improbable source of sand and gravel. A rating of probable means that the source material is likely to be in or below the soil. The numerical ratings in these columns indicate the degree of probability. The number 0.00 indicates that the soil is an improbable source. A number between 0.00 and 1.00 indicates the degree to which the soil is a probable source of sand or gravel.

Sand and gravel are natural aggregates suitable for commercial use with a minimum of processing. They are used in many kinds of construction. Specifications for each use vary widely. In the first table, only the probability of finding material in suitable quantity is evaluated. The suitability of the material for specific purposes is not evaluated, nor are factors that affect excavation of the material. The properties used to evaluate the soil as a source of sand or gravel are gradation of grain sizes (as indicated by the Unified classification of the soil), the thickness of suitable material, and the content of rock fragments. If the lowest layer of the soil contains sand or gravel, the soil is rated as a probable source regardless of thickness. The assumption is that the sand or gravel layer below the depth of observation exceeds the minimum thickness.

Topsoil is used to cover an area so that vegetation can be established and maintained. The upper 40 inches of a soil is evaluated for use as topsoil. Also evaluated is the reclamation potential of the borrow area. The ratings are based on the soil properties that affect plant growth; the ease of excavating, loading, and spreading the material; and reclamation of the borrow area. Toxic substances, soil reaction, and the properties that are inferred from soil texture, such as available water capacity and fertility, affect plant growth. The ease of excavating, loading, and spreading is affected by rock fragments, slope, depth to a water table, soil texture, and thickness of suitable material. Reclamation of the borrow area is affected by slope, depth to a water table, rock fragments, depth to bedrock or a cemented pan, and toxic material.

The surface layer of most soils is generally preferred for topsoil because of its organic matter content. Organic matter greatly increases the absorption and retention of moisture and nutrients for plant growth.

Reclamation material is used in areas that have been drastically disturbed by surface mining or similar activities. When these areas are reclaimed, layers of soil material or unconsolidated geological material, or both, are replaced in a vertical sequence. The reconstructed soil favors plant growth. The ratings in the table do not apply to quarries and other mined areas that require an offsite source of reconstruction material. The ratings are based on the soil properties that affect erosion and stability of the surface and the productive potential of the reconstructed soil. These properties include the content of sodium, salts, and calcium carbonate; reaction; available water capacity; erodibility; texture; content of rock fragments; and content of organic matter and other features that affect fertility.

Roadfill is soil material that is excavated in one place and used in road embankments in another place. In this table, the soils are rated as a source of roadfill for low embankments, generally less than 6 feet high and less exacting in design than higher embankments.

The ratings are for the whole soil, from the surface to a depth of about 5 feet. It is assumed that soil layers will be mixed when the soil material is excavated and spread.

The ratings are based on the amount of suitable material and on soil properties that affect the ease of excavation and the performance of the material after it is in place. The thickness of the suitable material is a major consideration. The ease of excavation is affected by large stones, depth to a water table, and slope. How well the soil performs in place after it has been compacted and drained is determined by its strength (as inferred from the AASHTO classification of the soil) and linear extensibility (shrink-swell potential).

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
Ab: Albaton Variant-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.00 0.99
AmB: Anselmo-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.09 0.39
An: Anselmo-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.09 0.99
AnC: Anselmo-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.09 0.47
Ba: Barney-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.66 0.95
Bo: Boel-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.09
Bt: Brocksburg-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.00
Cb: Cass-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.09 0.70
CcB: Cass-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.09 0.70
DdB: Duda-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.27
DdC: Duda-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.27
DuB: Dunday-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.65
DxB: Dunday-----	55	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.65
Duda-----	45	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.27
Eo: Els-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.99 0.99
Es: Elsmere-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.20

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The ratings given for the thickest layer are for the thickest layer above and excluding the bottom layer. The numbers in the value columns range from 0.00 to 0.99. The greater the value, the greater the likelihood that the bottom layer or thickest layer of the soil is a source of sand or gravel. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
Ho: Holt-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.07 0.70
HoC: Holt-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.07
HtC: Holt-----	70	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.31
Longpine-----	30	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
HtD: Holt-----	60	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.07
Longpine-----	40	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
IFD: Inavale-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.87 0.98
IgB: Inavale-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.87 0.98
IhB: Inavale-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.96 0.98
IpB: Ipage-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.65
Ja: Jansen-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.00 0.97
Jn: Jansen-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.00
JnC: Jansen-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.00
JoB: Jansen-----	60	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.00 0.97
Meadin-----	40	Poor Thickest layer Bottom layer	0.00 0.00	Fair Thickest layer Bottom layer	0.00 0.91
LaD: Labu-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
LCF: Labu-----	60	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
Sansarc-----	40	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
Lo: Loup-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.08
Lp: Loup-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.08
MaB: Holt Variant-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.07
MaC: Holt Variant-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.07
MFC: Holt Variant-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.07
MkG: Mariaville-----	60	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
Keota-----	40	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
Mm: Marlake-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.59
MnF: Meadin-----	100	Poor Thickest layer Bottom layer	0.00 0.00	Fair Thickest layer Bottom layer	0.09 0.91
Mu: Munjor-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.09 0.23
OaB: O'Neill-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.09
Oe: O'Neill-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.09
OeC: O'Neill-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.09
OeD: O'Neill-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.09

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
OhB: O'Neill-----	60	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.09
Meadin-----	40	Poor Thickest layer Bottom layer	0.00 0.00	Fair Thickest layer Bottom layer	0.08 0.91
OkD: O'Neill-----	60	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.09
Valentine-----	40	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.99
On: Onita-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
Or: Ord-----	70	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.07 0.96
Loup-----	30	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.09
Pf: Paka-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.08
Ph: Paka-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
PhB: Paka-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
Perched Wt-----		Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
PmC: Paka-----	60	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
Mariaville-----	40	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
PmF: Paka-----	55	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
Mariaville-----	45	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
RaB: Ree-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.00
Rb: Ree-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.03

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
ReC: Reliance-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.00
RoD: Ronson-----	55	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.04
Anselmo-----	45	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.09 0.09
RoF: Ronson-----	55	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.04
Anselmo-----	45	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.09 0.09
RtB: Ronson-----	55	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.04
Longpine-----	45	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
SaG: Sansarc-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
ScF: Schamber-----	100	Poor Thickest layer Bottom layer	0.00 0.00	Fair Thickest layer Bottom layer	0.08 0.77
SmF: Simeon-----	40	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.33 0.70
Holt Variant-----	35	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.07
Ronson-----	25	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.04
SvF2: Simeon-----	60	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.98 0.98
Valentine-----	40	Poor Bottom layer Thickest layer	0.00 0.00	Good	
SwB: Simeon-----	65	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.33 0.98
Valentine-----	35	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.49
TaF: Longpine-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
TdE: Longpine-----	60	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
Duda-----	40	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.46
Wt At 0-1 Foot-----		Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
TrG: Longpine-----	40	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
Ronson-----	35	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.09
Duda-----	25	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.16
Tu: Hennings-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.33
VaF: Valentine-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good	
VaG: Valentine-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good	
VbD: Valentine-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.70
VcF: Valentine-----	75	Poor Bottom layer Thickest layer	0.00 0.00	Good	
Longpine-----	25	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
VdC: Valentine-----	40	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.70
Valentine-----	30	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.84
Wewela-----	30	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
VdF: Valentine-----	40	Poor Bottom layer Thickest layer	0.00 0.00	Good Thickest layer	0.70
Valentine-----	30	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.70

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct. of map unit	Potential source of gravel		Potential source of sand	
		Rating class	Value	Rating class	Value
Wewela-----	30	Poor Bottom layer Thickest layer	0.00 0.00	Fair Bottom layer Thickest layer	0.00 0.23
Ve: Verdel-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
VeB: Verdel-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
VeC: Verdel-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
Vo: Vetal-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.09 0.47
Vt: Vetal-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.00 0.47
VtB: Vetal-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.00 0.47
VtC: Vetal-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Fair Thickest layer Bottom layer	0.00 0.09
WeB: Wewela-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
WeC: Wewela-----	100	Poor Bottom layer Thickest layer	0.00 0.00	Poor Bottom layer Thickest layer	0.00 0.00
zwa: Water-----	100	Not rated		Not rated	
zwb: Water-----	100	Not rated		Not rated	

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ab: Albaton Variant-----	100	Poor Too clayey	0.00	Fair Shrink-swell Depth to saturated zone	0.04 0.53	Poor Too Clayey Depth to saturated zone	0.00 0.53
AmB: Anselmo-----	100	Poor Wind erosion Low content of organic matter	0.00 0.88	Good		Good	
An: Anselmo-----	100	Fair Low content of organic matter	0.88	Good		Good	
AnC: Anselmo-----	100	Fair Low content of organic matter	0.88	Good		Good	
Ba: Barney-----	100	Poor Too sandy Low content of organic matter Droughty	0.00 0.12 0.97	Poor Depth to saturated zone	0.00	Poor Too sandy Depth to saturated zone Hard to reclaim	0.00 0.00 0.54
Bo: Boel-----	100	Poor Too sandy Low content of organic matter Droughty	0.00 0.12 0.95	Fair Depth to saturated zone	0.76	Poor Too sandy Depth to saturated zone	0.00 0.76
Bt: Brocksburg-----	100	Fair Low content of organic matter	0.12	Good		Fair Hard to reclaim	0.92
Cb: Cass-----	100	Fair Low content of organic matter	0.88	Good		Good	
CcB: Cass-----	100	Fair Low content of organic matter	0.88	Good		Good	
DdB: Duda-----	100	Poor Too sandy Wind erosion Droughty Low content of organic matter Depth to bedrock	0.00 0.00 0.00 0.50 0.58	Poor Depth to bedrock	0.00	Poor Too sandy Depth to bedrock	0.00 0.58
DdC: Duda-----	100	Poor Too sandy Wind erosion Droughty Low content of organic matter Depth to bedrock	0.00 0.00 0.00 0.50 0.58	Poor Depth to bedrock	0.00	Poor Too sandy Depth to bedrock	0.00 0.58
DuB: Dunday-----	100	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.90	Good		Poor Too sandy	0.00

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DxB: Dunday-----	55	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.90	Good		Poor Too sandy	0.00
Duda-----	45	Poor Too sandy Wind erosion Droughty Low content of organic matter Depth to bedrock	0.00 0.00 0.00 0.50 0.58	Poor Depth to bedrock	0.00	Poor Too sandy Depth to bedrock	0.00 0.58
Eo: Els-----	100	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.22	Fair Depth to saturated zone	0.76	Poor Too sandy Depth to saturated zone	0.00 0.76
Es: Elsmere-----	100	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.58	Fair Depth to saturated zone	0.76	Poor Too sandy Depth to saturated zone	0.00 0.76
Ho: Holt-----	100	Poor Too sandy Droughty Depth to bedrock Sodium content	0.00 0.31 0.58 0.97	Poor Depth to bedrock	0.00	Poor Too sandy Depth to bedrock Sodium content	0.00 0.58 0.98
HoC: Holt-----	100	Fair Droughty Depth to bedrock Sodium content	0.31 0.58 0.97	Poor Depth to bedrock	0.00	Fair Depth to bedrock Sodium content	0.58 0.98
HtC: Holt-----	70	Poor Too sandy Droughty Depth to bedrock Sodium content	0.00 0.31 0.58 0.97	Poor Depth to bedrock	0.00	Poor Too sandy Depth to bedrock Sodium content	0.00 0.58 0.98
Longpine-----	30	Poor Droughty Depth to bedrock Low content of organic matter	0.00 0.00 0.88	Poor Depth to bedrock	0.00	Poor Depth to bedrock Rock fragments	0.00 0.97
HtD: Holt-----	60	Fair Droughty Depth to bedrock Sodium content	0.31 0.58 0.97	Poor Depth to bedrock	0.00	Fair Depth to bedrock Slope Sodium content	0.58 0.96 0.98
Longpine-----	40	Poor Droughty Depth to bedrock Low content of organic matter	0.00 0.00 0.88	Poor Depth to bedrock	0.00	Poor Depth to bedrock Slope Rock fragments	0.00 0.96 0.97

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
IfD: Inavale-----	100	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.80	Good		Poor Too sandy	0.00
IgB: Inavale-----	100	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.80	Good		Poor Too sandy	0.00
IhB: Inavale-----	100	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.83	Good		Poor Too sandy	0.00
IpB: Ipage-----	100	Poor Too sandy Wind erosion Low content of organic matter Droughty Too acid	0.00 0.00 0.12 0.50 0.97	Good		Poor Too sandy	0.00
Ja: Jansen-----	100	Fair Low content of organic matter Droughty Too acid Water erosion	0.12 0.96 0.97 0.99	Good		Fair Hard to reclaim	0.98
Jn: Jansen-----	100	Fair Low content of organic matter Too acid Water erosion Droughty	0.12 0.97 0.99 0.99	Good		Fair Hard to reclaim	0.98
JnC: Jansen-----	100	Fair Low content of organic matter Too acid Water erosion Droughty	0.12 0.97 0.99 0.99	Good		Fair Hard to reclaim	0.98
JoB: Jansen-----	60	Poor Too sandy Low content of organic matter Too acid Droughty Water erosion	0.00 0.12 0.97 0.99 0.99	Good		Poor Too sandy Rock fragments Hard to reclaim	0.00 0.03 0.98
Meadin-----	40	Poor Too sandy Low content of organic matter Droughty Too acid	0.00 0.12 0.51 0.97	Good		Poor Too sandy Rock fragments Hard to reclaim	0.00 0.00 0.00
LaD: Labu-----	100	Poor Too clayey Droughty Depth to bedrock	0.00 0.03 0.58	Poor Depth to bedrock Shrink-swell	0.00 0.00	Poor Too Clayey Depth to bedrock Slope	0.00 0.58 0.96

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LcF: Labu-----	60	Poor Too clayey Droughty Depth to bedrock	0.00 0.03 0.58	Poor Depth to bedrock Shrink-swell Slope	0.00 0.00 0.32	Poor Too Clayey Slope Depth to bedrock	0.00 0.00 0.58
Sansarc-----	40	Poor Too clayey Droughty Depth to bedrock Low content of organic matter Water erosion	0.00 0.00 0.00 0.60 0.99	Poor Depth to bedrock Shrink-swell Low strength Slope	0.00 0.00 0.00 0.32	Poor Too Clayey Depth to bedrock Slope	0.00 0.00 0.00
Lo: Loup-----	100	Poor Too sandy Low content of organic matter Droughty	0.00 0.88 0.91	Poor Depth to saturated zone	0.00	Poor Too sandy Depth to saturated zone	0.00 0.00
Lp: Loup-----	100	Poor Too sandy Low content of organic matter Droughty	0.00 0.88 0.91	Poor Depth to saturated zone	0.00	Poor Too sandy Depth to saturated zone	0.00 0.00
MaB: Holt Variant-----	100	Poor Wind erosion Sodium content	0.00 0.97	Fair Depth to bedrock	0.58	Fair Sodium content	0.98
MaC: Holt Variant-----	100	Poor Wind erosion Sodium content	0.00 0.97	Fair Depth to bedrock	0.58	Fair Sodium content	0.98
MfC: Holt Variant-----	100	Fair Sodium content	0.97	Fair Depth to bedrock	0.58	Fair Sodium content	0.98
MkG: Mariaville-----	60	Poor Depth to bedrock Droughty Low content of organic matter Water erosion	0.00 0.00 0.88 0.90	Poor Depth to bedrock Slope	0.00 0.00	Poor Depth to bedrock Slope	0.00 0.00
Keota-----	40	Fair Low content of organic matter Depth to bedrock Droughty Water erosion	0.12 0.58 0.64 0.90	Poor Depth to bedrock Slope	0.00 0.00	Poor Slope Depth to bedrock	0.00 0.58
Mm: Marlake-----	100	Poor Too sandy Droughty Low content of organic matter	0.00 0.77 0.88	Poor Depth to saturated zone	0.00	Poor Too sandy Depth to saturated zone	0.00 0.00
MnF: Meadin-----	100	Poor Too sandy Low content of organic matter Droughty Too acid	0.00 0.12 0.47 0.97	Fair Slope	0.92	Poor Too sandy Rock fragments Hard to reclaim Slope	0.00 0.00 0.00 0.00
Mu: Munyor-----	100	Fair Low content of organic matter	0.12	Good		Good	

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OaB: O'Neill-----	100	Poor Wind erosion Low content of organic matter Droughty Too acid	0.00 0.12 0.59 0.84	Good		Fair Hard to reclaim	0.92
Oe: O'Neill-----	100	Fair Low content of organic matter Droughty Too acid	0.12 0.35 0.84	Good		Fair Hard to reclaim	0.92
OeC: O'Neill-----	100	Fair Low content of organic matter Droughty Too acid	0.12 0.35 0.84	Good		Fair Hard to reclaim	0.92
OeD: O'Neill-----	100	Fair Low content of organic matter Droughty Too acid	0.12 0.35 0.84	Good		Fair Hard to reclaim	0.92
OhB: O'Neill-----	60	Fair Low content of organic matter Droughty Too acid	0.12 0.48 0.84	Good		Fair Hard to reclaim	0.92
Meadin-----	40	Poor Too sandy Droughty Low content of organic matter Too acid	0.00 0.08 0.12 0.97	Good		Poor Too sandy Rock fragments Hard to reclaim	0.00 0.00 0.00
OkD: O'Neill-----	60	Poor Too sandy Low content of organic matter Droughty Too acid	0.00 0.12 0.20 0.84	Good		Poor Too sandy Rock fragments Hard to reclaim	0.00 0.00 0.92
Valentine-----	40	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.25	Good		Poor Too sandy	0.00
On: Onita-----	100	Fair Too clayey Low content of organic matter Water erosion	0.02 0.12 0.90	Fair Shrink-swell Depth to saturated zone	0.70 0.89	Fair Too Clayey Depth to saturated zone	0.02 0.89
Or: Ord-----	70	Fair Carbonate content	0.80	Fair Depth to saturated zone	0.76	Fair Depth to saturated zone Carbonate content	0.76 0.80
Loup-----	30	Poor Too sandy Low content of organic matter Droughty	0.00 0.88 0.98	Poor Depth to saturated zone	0.00	Poor Too sandy Depth to saturated zone	0.00 0.00

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Pf: Paka-----	100	Fair Water erosion	0.90	Fair Depth to bedrock	0.58	Good	
Ph: Paka-----	100	Fair Low content of organic matter Water erosion	0.88 0.90	Fair Depth to bedrock Shrink-swell	0.58 0.99	Good	
PhB: Paka-----	100	Fair Low content of organic matter Water erosion	0.88 0.90	Fair Depth to bedrock Shrink-swell	0.58 0.99	Good	
Perched Wt-----		Poor Low content of organic matter	0.00	Poor Slope Low strength	0.00 0.00	Poor Slope	0.00
PmC: Paka-----	60	Fair Low content of organic matter Water erosion	0.88 0.90	Fair Depth to bedrock Shrink-swell	0.58 0.99	Good	
Mariaville-----	40	Poor Depth to bedrock Droughty Low content of organic matter Water erosion	0.00 0.00 0.88 0.90	Poor Depth to bedrock	0.00	Poor Depth to bedrock	0.00
PmF: Paka-----	55	Fair Low content of organic matter Water erosion	0.88 0.90	Fair Slope Depth to bedrock Shrink-swell	0.32 0.58 0.99	Poor Slope	0.00
Mariaville-----	45	Poor Depth to bedrock Droughty Low content of organic matter Water erosion	0.00 0.00 0.88 0.90	Poor Depth to bedrock Slope	0.00 0.32	Poor Depth to bedrock Slope	0.00 0.00
RaB: Ree-----	100	Fair Too clayey	0.98	Fair Shrink-swell	0.94	Fair Too Clayey	0.81
Rb: Ree-----	100	Fair Low content of organic matter	0.12	Fair Depth to bedrock Shrink-swell	0.58 0.93	Good	
ReC: Reliance-----	100	Poor Too clayey Water erosion	0.00 0.90	Fair Shrink-swell	0.69	Poor Too Clayey Hard to reclaim	0.00 0.92
RoD: Ronson-----	55	Fair Droughty Depth to bedrock	0.02 0.58	Poor Depth to bedrock	0.00	Fair Depth to bedrock	0.58
Anselmo-----	45	Fair Low content of organic matter	0.88	Good		Good	
RoF: Ronson-----	55	Fair Droughty Depth to bedrock	0.02 0.58	Poor Depth to bedrock Slope	0.00 0.50	Poor Slope Depth to bedrock	0.00 0.58
Anselmo-----	45	Fair Low content of organic matter	0.88	Good		Fair Slope	0.16

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
RtB: Ronson-----	55	Fair Droughty Depth to bedrock	0.02 0.58	Poor Depth to bedrock	0.00	Fair Depth to bedrock	0.58
Longpine-----	45	Poor Droughty Depth to bedrock Low content of organic matter	0.00 0.00 0.88	Poor Depth to bedrock	0.00	Poor Depth to bedrock Rock fragments	0.00 0.00
SaG: Sansarc-----	100	Poor Too clayey Droughty Depth to bedrock Low content of organic matter Water erosion	0.00 0.00 0.00 0.60 0.99	Poor Depth to bedrock Slope Shrink-swell Low strength	0.00 0.00 0.00 0.00	Poor Slope Too Clayey Depth to bedrock	0.00 0.00 0.00
ScF: Schamber-----	100	Poor Too sandy Droughty Low content of organic matter	0.00 0.00 0.50	Fair Slope	0.32	Poor Too sandy Hard to reclaim Rock fragments Slope	0.00 0.00 0.00 0.00
SmF: Simeon-----	40	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.87	Good		Poor Too sandy Slope	0.00 0.37
Holt Variant-----	35	Poor Wind erosion Droughty Low content of organic matter Sodium content	0.00 0.01 0.12 0.97	Fair Depth to bedrock	0.58	Fair Sodium content	0.98
Ronson-----	25	Poor Wind erosion Droughty Too sandy Depth to bedrock	0.00 0.00 0.32 0.58	Poor Depth to bedrock	0.00	Fair Too sandy Slope Depth to bedrock	0.32 0.37 0.58
SvF2: Simeon-----	60	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.75	Good		Poor Too sandy Slope	0.00 0.37
Valentine-----	40	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.14	Good		Poor Too sandy Slope	0.00 0.37
SwB: Simeon-----	65	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.92	Good		Poor Too sandy	0.00
Valentine-----	35	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.20	Good		Poor Too sandy	0.00

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TaF: Longpine-----	100	Poor Wind erosion Droughty Depth to bedrock Low content of organic matter	0.00 0.00 0.00 0.88	Poor Depth to bedrock Slope	0.00 0.92	Poor Depth to bedrock Rock fragments Slope	0.00 0.00 0.00
TdE: Longpine-----	60	Poor Droughty Depth to bedrock Low content of organic matter	0.00 0.00 0.88	Poor Depth to bedrock	0.00	Poor Depth to bedrock Rock fragments Slope	0.00 0.00 0.96
Duda-----	40	Poor Too sandy Wind erosion Droughty Low content of organic matter Depth to bedrock	0.00 0.00 0.00 0.50 0.58	Poor Depth to bedrock	0.00	Poor Too sandy Depth to bedrock Slope	0.00 0.58 0.63
Wt At 0-1 Foot-----		Poor Low content of organic matter	0.00	Poor Slope Low strength	0.00 0.00	Poor Slope	0.00
TrG: Longpine-----	40	Poor Wind erosion Droughty Depth to bedrock Too sandy Low content of organic matter	0.00 0.00 0.00 0.00 0.88	Poor Depth to bedrock Slope	0.00 0.00	Poor Slope Depth to bedrock Rock fragments Too sandy	0.00 0.00 0.00 0.00
Ronson-----	35	Fair Droughty Depth to bedrock Low content of organic matter	0.17 0.58 0.88	Poor Depth to bedrock Slope	0.00 0.08	Poor Slope Depth to bedrock	0.00 0.58
Duda-----	25	Poor Too sandy Droughty Low content of organic matter Depth to bedrock	0.00 0.03 0.50 0.58	Poor Depth to bedrock Slope	0.00 0.08	Poor Too sandy Slope Depth to bedrock	0.00 0.00 0.58
Tu: Hennings-----	100	Fair Low content of organic matter Water erosion	0.12 0.99	Fair Depth to bedrock	0.58	Good	
VaF: Valentine-----	100	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.14	Fair Slope	0.92	Poor Too sandy Slope	0.00 0.00
VaG: Valentine-----	100	Poor Too sandy Wind erosion Droughty Low content of organic matter	0.00 0.00 0.12 0.12	Poor Slope	0.00	Poor Slope Too sandy	0.00 0.00
VbD: Valentine-----	100	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.18	Good		Poor Too sandy	0.00

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
VcF: Valentine-----	75	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.15	Good		Poor Too sandy Slope	0.00 0.37
Longpine-----	25	Poor Droughty Depth to bedrock Low content of organic matter	0.00 0.00 0.88	Poor Depth to bedrock	0.00	Poor Depth to bedrock Slope Rock fragments	0.00 0.37 0.97
VdC: Valentine-----	40	Poor Too sandy Wind erosion Low content of organic matter Droughty	0.00 0.00 0.12 0.18	Good		Poor Too sandy	0.00
Valentine-----	30	Poor Wind erosion Too sandy Low content of organic matter	0.00 0.00 0.12	Fair Shrink-swell	0.96	Poor Too sandy	0.00
Wewela-----	30	Poor Wind erosion Droughty Depth to bedrock Water erosion	0.00 0.13 0.58 0.99	Poor Depth to bedrock Shrink-swell	0.00 0.93	Fair Depth to bedrock	0.58
VdF: Valentine-----	40	Poor Too sandy Wind erosion Droughty Low content of organic matter	0.00 0.00 0.05 0.12	Fair Slope	0.82	Poor Too sandy Slope	0.00 0.00
Valentine-----	30	Poor Wind erosion Too sandy Low content of organic matter	0.00 0.00 0.12	Fair Slope Shrink-swell	0.82 0.96	Poor Slope Too sandy	0.00 0.00
Wewela-----	30	Poor Too sandy Wind erosion Droughty Depth to bedrock Water erosion	0.00 0.00 0.08 0.58 0.99	Poor Depth to bedrock Shrink-swell	0.00 0.89	Poor Too sandy Depth to bedrock	0.00 0.58
Ve: Verdel-----	100	Poor Too clayey Low content of organic matter	0.00 0.88	Fair Shrink-swell	0.12	Poor Too Clayey	0.00
VeB: Verdel-----	100	Poor Too clayey Low content of organic matter	0.00 0.88	Fair Shrink-swell	0.12	Poor Too Clayey	0.00
VeC: Verdel-----	100	Poor Too clayey Low content of organic matter	0.00 0.88	Fair Shrink-swell	0.12	Poor Too Clayey	0.00
Vo: Vetal-----	100	Good		Good		Good	
Vt: Vetal-----	100	Good		Good		Good	

CONSTRUCTION MATERIALS--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 0.99. The smaller the value, the greater the limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct. of map unit	Potential source of reclamation material		Potential source of roadfill		Potential source of topsoil	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
VtB: Vetal-----	100	Good		Good		Good	
VtC: Vetal-----	100	Good		Good		Good	
WeB: Wewela-----	100	Poor Too clayey Droughty Low content of organic matter Depth to bedrock Water erosion	0.00 0.29 0.50 0.58 0.99	Poor Depth to bedrock Shrink-swell	0.00 0.33	Poor Too Clayey Depth to bedrock	0.00 0.58
WeC: Wewela-----	100	Poor Too clayey Droughty Low content of organic matter Depth to bedrock Water erosion	0.00 0.29 0.50 0.58 0.99	Poor Depth to bedrock Shrink-swell	0.00 0.33	Poor Too Clayey Depth to bedrock	0.00 0.58
zwa: Water-----	100	Not rated		Not rated		Not rated	
zwb: Water-----	100	Not rated		Not rated		Not rated	

RECREATIONAL INTERPRETATIONS
Keya Paha County, Nebraska

Recreation

The soils of the survey area are rated in the following tables according to limitations that affect their suitability for recreation. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the recreational uses. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slightly limited indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

The ratings in the tables are based on restrictive soil features, such as wetness, slope, and texture of the surface layer. Susceptibility to flooding is considered. Not considered in the ratings, but important in evaluating a site, are the location and accessibility of the area, the size and shape of the area and its scenic quality, vegetation, access to water, potential water impoundment sites, and access to public sewer lines. The capacity of the soil to absorb septic tank effluent and the ability of the soil to support vegetation also are important. Soils that are subject to flooding are limited for recreational uses by the duration and intensity of flooding and the season when flooding occurs. In planning recreational facilities, onsite assessment of the height, duration, intensity, and frequency of flooding is essential.

The information in this table can be supplemented by other information in this survey, for example, interpretations for building site development, construction materials, sanitary facilities, and water management.

Camp areas require site preparation, such as shaping and leveling the tent and parking areas, stabilizing roads and intensively used areas, and installing sanitary facilities and utility lines. Camp areas are subject to heavy foot traffic and some vehicular traffic. The ratings are based on the soil properties that affect the ease of developing camp areas and the performance of the areas after development. Slope, stoniness, and depth to bedrock or a cemented pan are the main concerns affecting the development of camp areas.

The soil properties that affect the performance of the areas after development are those that influence trafficability and promote the growth of vegetation, especially in heavily used areas. For good trafficability, the surface of camp areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Picnic areas are subject to heavy foot traffic. Most vehicular traffic is confined to access roads and parking areas. The ratings are based on the soil properties that affect the ease of developing picnic areas and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of picnic areas. For good trafficability, the surface of picnic areas should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Playgrounds require soils that are nearly level, are free of stones, and can withstand intensive foot traffic. The ratings are based on the soil properties that affect the ease of developing playgrounds and that influence trafficability and the growth of vegetation after development. Slope and stoniness are the main concerns affecting the development of playgrounds. For good trafficability, the surface of the playgrounds should absorb rainfall readily, remain firm under heavy foot traffic, and not be dusty when dry. The soil properties that influence trafficability are texture of the surface layer, depth to a water table, ponding, flooding, permeability, and large stones. The soil properties that affect the growth of plants are depth to bedrock or a cemented pan, permeability, and toxic substances in the soil.

Paths and trails for hiking and horseback riding should require little or no slope modification through cutting and filling. The ratings are based on the soil properties that affect trafficability and erodibility. These properties are stoniness, depth to a water table, ponding, flooding, slope, and texture of the surface layer.

Golf fairways are subject to heavy foot traffic and some light vehicular traffic. Cutting or filling may be required. Irrigation is not considered in the ratings. The ratings are based on the soil properties that affect plant growth and trafficability after vegetation is established. The properties that affect plant growth are reaction; depth to a water table; ponding; depth to bedrock or a cemented pan; the available water capacity in the upper 40 inches; the content of salts, sodium, or calcium carbonate; and sulfidic materials. The properties that affect trafficability are flooding, depth to a water table, ponding, slope, stoniness, and the amount of sand, clay, or organic matter in the surface layer. The suitability of the soil for traps, tees, roughs, and greens is not considered in the ratings.

RECREATIONAL INTERPRETATIONS--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ab: Albaton Variant-----	100	Very limited Flooding	1.00	Very limited Restricted permeability Too clayey	1.00	Very limited Restricted permeability Too clayey	1.00
		Restricted permeability Too clayey	1.00	Depth to saturated zone	0.19	Flooding	0.60
		Depth to saturated zone	0.39			Depth to saturated zone	0.39
AmB: Anselmo-----	100	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy Slope	0.95 0.00
An: Anselmo-----	100	Not limited		Not limited		Not limited	
AnC: Anselmo-----	100	Not limited		Not limited		Somewhat limited Slope	0.50
Ba: Barney-----	100	Very limited Depth to saturated zone Flooding	1.00 1.00	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Depth to saturated zone Flooding	1.00 1.00
Bo: Boel-----	100	Very limited Flooding	1.00	Somewhat limited Depth to saturated zone	0.03	Somewhat limited Flooding	0.60
		Depth to saturated zone	0.07			Depth to saturated zone	0.07
Bt: Brocksburg-----	100	Not limited		Not limited		Not limited	
Cb: Cass-----	100	Very limited Flooding	1.00	Not limited		Not limited	
CcB: Cass-----	100	Very limited Flooding	1.00	Somewhat limited Flooding	0.40	Very limited Flooding Slope	1.00 0.00
DdB: Duda-----	100	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy Slope	0.95 0.00
DdC: Duda-----	100	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy Slope Depth to bedrock	0.95 0.87 0.42
DuB: Dunday-----	100	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy Slope	0.95 0.00
DxB: Dunday-----	55	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy Slope	0.95 0.00
	45	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy Slope	0.95 0.00
Eo: Els-----	100	Very limited Too sandy Depth to saturated zone	1.00 0.07	Very limited Too sandy Depth to saturated zone	1.00 0.03	Very limited Too sandy Depth to saturated zone	1.00 0.07
Es: Elsmere-----	100	Somewhat limited Too sandy Depth to saturated zone	0.95 0.07	Somewhat limited Too sandy Depth to saturated zone	0.95 0.03	Somewhat limited Too sandy Depth to saturated zone	0.95 0.07
Ho: Holt-----	100	Not limited		Not limited		Not limited	
HoC: Holt-----	100	Not limited		Not limited		Somewhat limited Slope Depth to bedrock	0.50 0.42
HtC: Holt-----	70	Not limited		Not limited		Somewhat limited Slope Depth to bedrock	0.87 0.42
Longpine-----	30	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Slope	1.00 0.87

RECREATIONAL INTERPRETATIONS--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
						Gravel content	0.06
HtD: Holt-----	60	Somewhat limited Slope	0.04	Somewhat limited Slope	0.04	Very limited Slope	1.00
Longpine-----	40	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Slope	0.42 1.00 1.00
IfD: Inavale-----	100	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Very limited Too sandy Slope	0.06 1.00 1.00
IgB: Inavale-----	100	Very limited Flooding Too sandy	1.00 1.00	Very limited Too sandy Flooding	1.00 0.40	Very limited Too sandy Flooding Slope	1.00 1.00 0.00
IhB: Inavale-----	100	Somewhat limited Too sandy	0.96	Somewhat limited Too sandy	0.96	Somewhat limited Too sandy Slope	0.96 0.00
IpB: Ipage-----	100	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy Slope	0.95 0.00
Ja: Jansen-----	100	Not limited		Not limited		Not limited	
Jn: Jansen-----	100	Not limited		Not limited		Not limited	
JnC: Jansen-----	100	Not limited		Not limited		Somewhat limited Slope	0.50
JoB: Jansen-----	60	Not limited		Not limited		Somewhat limited Slope	0.00
Meadin-----	40	Not limited		Not limited		Somewhat limited Gravel content Slope	0.22 0.00
LaD: Labu-----	100	Somewhat limited Too clayey Restricted permeability Slope	0.50 0.45 0.04	Somewhat limited Too clayey Restricted permeability Slope	0.50 0.45 0.04	Very limited Slope Too clayey Restricted permeability Depth to bedrock	1.00 0.50 0.45 0.42
LcF: Labu-----	60	Very limited Slope Too clayey Restricted permeability	1.00 0.50 0.45	Very limited Slope Too clayey Restricted permeability	1.00 0.50 0.45	Very limited Slope Too clayey Restricted permeability Depth to bedrock	1.00 0.50 0.45 0.42
Sansarc-----	40	Very limited Depth to bedrock Slope Too clayey Restricted permeability	1.00 1.00 0.50 0.45	Very limited Depth to bedrock Slope Too clayey Restricted permeability	1.00 1.00 0.50 0.45	Very limited Slope Depth to bedrock Too clayey Restricted permeability	1.00 1.00 0.50 0.45
Lo: Loup-----	100	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Lp: Loup-----	100	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Ponding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
MaB: Holt Variant-----	100	Somewhat limited Too sandy	0.92	Somewhat limited Too sandy	0.92	Somewhat limited Too sandy Slope	0.92 0.00
MaC: Holt Variant-----	100	Somewhat limited Too sandy	0.92	Somewhat limited Too sandy	0.92	Somewhat limited Too sandy Slope	0.92 0.87
MfC: Holt Variant-----	100	Not limited		Not limited		Somewhat limited Slope	0.50

RECREATIONAL INTERPRETATIONS--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
MkG: Mariaville-----	60	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00
Keota-----	40	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty	1.00 0.50	Very limited Slope Dusty Depth to bedrock	1.00 0.50 0.42
Mm: Marlake-----	100	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Ponding Depth to saturated zone	1.00 1.00	Very limited Depth to saturated zone Ponding	1.00 1.00
MnF: Meadin-----	100	Too sandy	0.95	Too sandy	0.95	Too sandy	0.95
Mu: Munyor-----	100	Very limited Slope Gravel content	1.00 0.08	Very limited Slope Gravel content	1.00 0.08	Very limited Gravel content Slope	1.00 1.00
OaB: O'Neill-----	100	Very limited Flooding	1.00	Not limited		Not limited	
Oe: O'Neill-----	100	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy Slope	0.95 0.00
OeC: O'Neill-----	100	Not limited		Not limited		Not limited	
OeD: O'Neill-----	100	Not limited		Not limited		Somewhat limited Slope	0.50
OhB: O'Neill-----	100	Somewhat limited Slope	0.00	Somewhat limited Slope	0.00	Very limited Slope	1.00
Meadin-----	60	Not limited		Not limited		Somewhat limited Slope	0.00
Meadin-----	40	Not limited		Not limited		Somewhat limited Gravel content Slope	0.22 0.00
OkD: O'Neill-----	60	Not limited		Not limited		Somewhat limited Slope	0.00
Valentine-----	40	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Very limited Too sandy Slope	1.00 1.00
On: Onita-----	100	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Very limited Too sandy Slope	1.00 1.00
Or: Ord-----	70	Somewhat limited Restricted permeability	0.41	Somewhat limited Restricted permeability	0.41	Somewhat limited Restricted permeability	0.41
Loup-----	30	Somewhat limited Depth to saturated zone	0.07	Somewhat limited Depth to saturated zone	0.03	Somewhat limited Depth to saturated zone	0.07
Pf: Paka-----	100	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Ph: Paka-----	100	Not limited		Not limited		Not limited	
PhB: Paka-----	100	Not limited		Not limited		Not limited	
Perched Wt-----	100	Not limited		Not limited		Somewhat limited Slope	0.00
PmC: Paka-----	60	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Restricted permeability	1.00 1.00	Very limited Slope Restricted permeability	1.00 1.00
Mariaville-----	40	Not limited		Not limited		Somewhat limited Slope	0.87
PmF: Paka-----	55	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Slope	1.00 0.87
Mariaville-----	45	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00
RaB: Ree-----	100	Not limited		Not limited		Somewhat limited	

RECREATIONAL INTERPRETATIONS--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Rb:						Slope	0.00
Ree-----	100	Not limited		Not limited		Not limited	
ReC:							
Reliance-----	100	Somewhat limited Restricted permeability	0.41	Somewhat limited Restricted permeability	0.41	Somewhat limited Slope	0.50
						Restricted permeability	0.41
RoD:							
Ronson-----	55	Somewhat limited Slope	0.00	Somewhat limited Slope	0.00	Very limited Slope	1.00
						Depth to bedrock	0.42
Anselmo-----	45	Somewhat limited Slope	0.00	Somewhat limited Slope	0.00	Very limited Slope	1.00
RoF:							
Ronson-----	55	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
						Depth to bedrock	0.42
Anselmo-----	45	Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Slope	1.00
RtB:							
Ronson-----	55	Not limited		Not limited		Somewhat limited Slope	0.00
Longpine-----	45	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
						Gravel content	0.06
						Slope	0.00
SaG:							
Sansarc-----	100	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too clayey	0.50	Too clayey	0.50	Too clayey	0.50
		Restricted permeability	0.45	Restricted permeability	0.45	Restricted permeability	0.45
ScF:							
Schamber-----	100	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Gravel content	0.38	Gravel content	0.38	Gravel content	1.00
SmF:							
Simeon-----	40	Somewhat limited Too sandy	0.72	Somewhat limited Too sandy	0.72	Very limited Slope	1.00
		Slope	0.63	Slope	0.63	Too sandy	0.72
Holt Variant-----	35	Somewhat limited Too sandy	0.92	Somewhat limited Too sandy	0.92	Very limited Slope	1.00
		Slope	0.00	Slope	0.00	Too sandy	0.92
Ronson-----	25	Somewhat limited Slope	0.63	Somewhat limited Slope	0.63	Very limited Slope	1.00
		Too sandy	0.41	Too sandy	0.41	Depth to bedrock	0.42
						Too sandy	0.41
SvF2:							
Simeon-----	60	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Very limited Too sandy	1.00
		Slope	0.63	Slope	0.63	Slope	1.00
Valentine-----	40	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Very limited Too sandy	1.00
		Slope	0.63	Slope	0.63	Slope	1.00
SwB:							
Simeon-----	65	Somewhat limited Too sandy	0.72	Somewhat limited Too sandy	0.72	Somewhat limited Too sandy	0.72
						Slope	0.00
Valentine-----	35	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87	Somewhat limited Too sandy	0.87
						Slope	0.00
TaF:							
Longpine-----	100	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37
						Gravel content	0.06
TdE:							
Longpine-----	60	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
		Slope	0.04	Slope	0.04	Slope	1.00
						Gravel content	0.06
Duda-----	40	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy	0.95	Very limited Slope	1.00
		Slope	0.37	Slope	0.37	Too sandy	0.95
						Depth to bedrock	0.42
Wt At 0-1 Foot-----		Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00

RECREATIONAL INTERPRETATIONS--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TrG: Longpine-----	40	Restricted permeability	1.00	Restricted permeability	1.00	Restricted permeability	1.00
		Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Too sandy	0.37	Too sandy	0.37	Too sandy	0.37
Ronson-----	35	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
Duda-----	25	Very limited Slope	1.00	Very limited Slope	1.00	Depth to bedrock	0.42
Tu: Hennings-----	100	Not limited		Not limited		Very limited Slope	1.00
VaF: Valentine-----	100	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Depth to bedrock	0.42
		Slope	1.00	Slope	1.00	Too sandy	1.00
VaG: Valentine-----	100	Very limited Slope	1.00	Very limited Too sandy	1.00	Very limited Slope	1.00
		Too sandy	1.00	Slope	1.00	Too sandy	1.00
VbD: Valentine-----	100	Somewhat limited Too sandy	0.96	Somewhat limited Too sandy	0.96	Very limited Slope	1.00
						Too sandy	0.96
VcF: Valentine-----	75	Very limited Too sandy	1.00	Very limited Too sandy	1.00	Very limited Too sandy	1.00
		Slope	0.63	Slope	0.63	Slope	1.00
Longpine-----	25	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Slope	1.00
VdC: Valentine-----	40	Somewhat limited Too sandy	0.96	Somewhat limited Too sandy	0.96	Gravel content	0.06
						Somewhat limited Too sandy	0.96
Valentine-----	30	Somewhat limited Too sandy	0.95	Somewhat limited Too sandy	0.95	Somewhat limited Slope	0.87
						Too sandy	0.95
Wewela-----	30	Somewhat limited Too sandy	0.92	Somewhat limited Too sandy	0.92	Somewhat limited Slope	0.87
		Restricted permeability	0.45	Restricted permeability	0.45	Too sandy	0.92
						Slope	0.87
						Restricted permeability	0.45
						Depth to bedrock	0.42
VdF: Valentine-----	40	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Too sandy	0.96	Too sandy	0.96	Too sandy	0.96
Valentine-----	30	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Too sandy	0.95	Too sandy	0.95	Too sandy	0.95
Wewela-----	30	Somewhat limited Too sandy	0.92	Somewhat limited Too sandy	0.92	Very limited Slope	1.00
		Restricted permeability	0.45	Restricted permeability	0.45	Too sandy	0.92
		Slope	0.00	Slope	0.00	Restricted permeability	0.45
						Depth to bedrock	0.42
Ve: Verdel-----	100	Somewhat limited Restricted permeability	0.45	Somewhat limited Restricted permeability	0.45	Somewhat limited Restricted permeability	0.45
VeB: Verdel-----	100	Somewhat limited Restricted permeability	0.45	Somewhat limited Restricted permeability	0.45	Somewhat limited Restricted permeability	0.45
						Slope	0.00
VeC: Verdel-----	100	Somewhat limited Restricted permeability	0.45	Somewhat limited Restricted permeability	0.45	Somewhat limited Slope	0.87
						Restricted permeability	0.45
Vo: Vetal-----	100	Not limited		Not limited		Not limited	

RECREATIONAL INTERPRETATIONS--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Camp areas		Picnic areas		Playgrounds	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Vt: Vetal-----	100	Not limited		Not limited		Not limited	
VtB: Vetal-----	100	Not limited		Not limited		Somewhat limited Slope	0.00
VtC: Vetal-----	100	Not limited		Not limited		Somewhat limited Slope	0.87
WeB: Wewela-----	100	Somewhat limited Restricted permeability	0.45	Somewhat limited Restricted permeability	0.45	Somewhat limited Restricted permeability	0.45
WeC: Wewela-----	100	Somewhat limited Restricted permeability	0.45	Somewhat limited Restricted permeability	0.45	Somewhat limited Slope	0.87
						Restricted permeability Depth to bedrock	0.42
zwa: Water-----	100	Not rated		Not rated		Not rated	
zwb: Water-----	100	Not rated		Not rated		Not rated	

RECREATIONAL INTERPRETATIONS--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Paths and trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Ab: Albaton Variant-----	100	Very limited Too clayey	1.00	Very limited Too clayey Flooding Depth to saturated zone	1.00 0.60 0.19
AmB: Anselmo-----	100	Somewhat limited Too sandy	0.95	Not limited	
An: Anselmo-----	100	Not limited		Not limited	
AnC: Anselmo-----	100	Not limited		Not limited	
Ba: Barney-----	100	Very limited Depth to saturated zone Flooding	1.00 0.40	Very limited Flooding Depth to saturated zone	1.00 1.00
Bo: Boel-----	100	Not limited		Somewhat limited Flooding Depth to saturated zone Droughty	0.60 0.03 0.02
Bt: Brocksburg-----	100	Not limited		Not limited	
Cb: Cass-----	100	Not limited		Not limited	
CcB: Cass-----	100	Somewhat limited Flooding	0.40	Very limited Flooding	1.00
DdB: Duda-----	100	Somewhat limited Too sandy	0.95	Somewhat limited Droughty Depth to bedrock	0.91 0.42
DdC: Duda-----	100	Somewhat limited Too sandy	0.95	Somewhat limited Droughty Depth to bedrock	0.91 0.42
DuB: Dunday-----	100	Somewhat limited Too sandy	0.95	Somewhat limited Droughty	0.07
DxB: Dunday-----	55	Somewhat limited Too sandy	0.95	Somewhat limited Droughty	0.07
Duda-----	45	Somewhat limited Too sandy	0.95	Somewhat limited Droughty Depth to bedrock	0.91 0.42
Eo: Els-----	100	Very limited Too sandy	1.00	Somewhat limited Droughty Depth to saturated zone	0.73 0.03
Es: Elsmere-----	100	Somewhat limited Too sandy	0.95	Somewhat limited Droughty Depth to saturated zone	0.21 0.03
Ho: Holt-----	100	Not limited		Somewhat limited Depth to bedrock	0.42
HoC: Holt-----	100	Not limited		Somewhat limited Depth to bedrock	0.42
HtC: Holt-----	70	Not limited		Somewhat limited Depth to bedrock	0.42
Longpine-----	30	Not limited		Very limited Depth to bedrock Droughty	1.00 1.00
HtD: Holt-----	60	Not limited		Somewhat limited Depth to bedrock Slope	0.42 0.04
Longpine-----	40	Not limited		Very limited Depth to bedrock Droughty Slope	1.00 1.00 0.04
IfD: Inavale-----	100	Very limited		Somewhat limited	

RECREATIONAL INTERPRETATIONS--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Paths and trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value
IgB: Inavale-----	100	Too sandy	1.00	Droughty	0.21
IhB: Inavale-----	100	Very limited Too sandy Flooding	1.00 0.40	Very limited Flooding Droughty	1.00 0.21
IpB: Ipage-----	100	Somewhat limited Too sandy	0.96	Somewhat limited Droughty	0.16
Ja: Jansen-----	100	Somewhat limited Too sandy	0.95	Somewhat limited Droughty	0.48
Jn: Jansen-----	100	Not limited		Not limited	
JnC: Jansen-----	100	Not limited		Not limited	
JoB: Jansen-----	60	Not limited		Not limited	
Meadin-----	40	Not limited		Somewhat limited Droughty	0.06
LaD: Labu-----	100	Somewhat limited Too clayey	0.50	Very limited Too clayey Depth to bedrock Droughty Slope	1.00 0.42 0.20 0.04
LcF: Labu-----	60	Somewhat limited Slope Too clayey	0.68 0.50	Very limited Too clayey Slope Depth to bedrock Droughty Slope	1.00 1.00 0.42 0.20 1.00
Sansarc-----	40	Somewhat limited Slope Too clayey	0.68 0.50	Very limited Too clayey Depth to bedrock Droughty Slope	1.00 1.00 1.00 1.00
Lo: Loup-----	100	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone Droughty	1.00 0.01
Lp: Loup-----	100	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Ponding Depth to saturated zone Droughty	1.00 1.00 0.01
MaB: Holt Variant-----	100	Somewhat limited Too sandy	0.92	Not limited	
MaC: Holt Variant-----	100	Somewhat limited Too sandy	0.92	Not limited	
MfC: Holt Variant-----	100	Not limited		Not limited	
MkG: Mariaville-----	60	Very limited Slope	1.00	Very limited Depth to bedrock Slope Droughty	1.00 1.00 0.41
Keota-----	40	Very limited Slope Dusty	1.00 0.50	Very limited Slope Depth to bedrock	1.00 1.00 0.42
Mm: Marlake-----	100	Very limited Depth to saturated zone Ponding	1.00 1.00	Very limited Ponding Depth to saturated zone Droughty	1.00 1.00 0.05
MnF: Meadin-----	100	Too sandy	0.95	Very limited Slope Droughty Gravel content	1.00 0.33 0.08
Mu: Munjor-----	100	Somewhat limited Slope	0.08	Not limited	

RECREATIONAL INTERPRETATIONS--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Paths and trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value
OaB: O'Neill-----	100	Somewhat limited Too sandy	0.95	Somewhat limited Droughty	0.00
Oe: O'Neill-----	100	Not limited		Somewhat limited Droughty	0.08
OeC: O'Neill-----	100	Not limited		Somewhat limited Droughty	0.08
OeD: O'Neill-----	100	Not limited		Somewhat limited Droughty Slope	0.08 0.00
OhB: O'Neill-----	60	Not limited		Somewhat limited Droughty	0.02
Meadin-----	40	Not limited		Somewhat limited Droughty	0.73
OkD: O'Neill-----	60	Not limited		Somewhat limited Droughty	0.25
Valentine-----	40	Very limited Too sandy	1.00	Somewhat limited Droughty	0.67
On: Onita-----	100	Not limited		Not limited	
Or: Ord-----	70	Not limited		Somewhat limited Depth to saturated zone	0.03
Loup-----	30	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
Pf: Paka-----	100	Not limited		Not limited	
Ph: Paka-----	100	Not limited		Not limited	
PhB: Paka-----	100	Not limited		Not limited	
Perched Wt-----		Very limited Slope Water erosion	1.00 1.00	Very limited Slope	1.00
PmC: Paka-----	60	Not limited		Not limited	
Mariaville-----	40	Not limited		Very limited Depth to bedrock Droughty	1.00 0.44
PmF: Paka-----	55	Somewhat limited Slope	0.68	Very limited Slope	1.00
Mariaville-----	45	Somewhat limited Slope	0.68	Very limited Depth to bedrock Slope Droughty	1.00 1.00 0.44
RaB: Ree-----	100	Not limited		Not limited	
Rb: Ree-----	100	Not limited		Not limited	
ReC: Reliance-----	100	Not limited		Not limited	
RoD: Ronson-----	55	Not limited		Somewhat limited Depth to bedrock Droughty Slope	0.42 0.24 0.00
Anselmo-----	45	Not limited		Somewhat limited Slope	0.00
RoF: Ronson-----	55	Somewhat limited Slope	0.50	Very limited Slope Depth to bedrock Droughty	1.00 0.42 0.24
Anselmo-----	45	Not limited		Somewhat limited Slope	0.84
RtB: Ronson-----	55	Not limited		Somewhat limited Depth to bedrock Droughty	0.42 0.24
Longpine-----	45	Not limited		Very limited Depth to bedrock Droughty	1.00 1.00

RECREATIONAL INTERPRETATIONS--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Paths and trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value
SaG: Sansarc-----	100	Very limited Slope Too clayey	1.00 0.50	Very limited Too clayey Depth to bedrock Slope Droughty	1.00 1.00 1.00 1.00
ScF: Schamber-----	100	Somewhat limited Slope	0.68	Very limited Slope Droughty Gravel content	1.00 1.00 0.38
SmF: Simeon-----	40	Somewhat limited Too sandy	0.72	Somewhat limited Slope Droughty	0.63 0.11
Holt Variant-----	35	Somewhat limited Too sandy	0.92	Somewhat limited Droughty Slope	0.33 0.00
Ronson-----	25	Somewhat limited Too sandy	0.41	Somewhat limited Slope Droughty Depth to bedrock	0.63 0.57 0.42
SvF2: Simeon-----	60	Very limited Too sandy	1.00	Somewhat limited Slope Droughty	0.63 0.28
Valentine-----	40	Very limited Too sandy	1.00	Somewhat limited Droughty Slope	0.86 0.63
SwB: Simeon-----	65	Somewhat limited Too sandy	0.72	Somewhat limited Droughty	0.04
Valentine-----	35	Somewhat limited Too sandy	0.87	Somewhat limited Droughty	0.76
TaF: Longpine-----	100	Somewhat limited Too sandy Slope	0.37 0.08	Very limited Depth to bedrock Droughty Slope	1.00 1.00 1.00
TdE: Longpine-----	60	Not limited		Very limited Depth to bedrock Droughty Slope	1.00 1.00 0.04
Duda-----	40	Somewhat limited Too sandy	0.95	Somewhat limited Droughty Depth to bedrock Slope	0.62 0.42 0.37
Wt At 0-1 Foot-----		Very limited Slope Water erosion	1.00 1.00	Very limited Slope	1.00
TrG: Longpine-----	40	Very limited Slope Too sandy	1.00 0.37	Very limited Depth to bedrock Slope Droughty	1.00 1.00 1.00
Ronson-----	35	Somewhat limited Slope	0.92	Very limited Slope Depth to bedrock Droughty	1.00 0.42 0.01
Duda-----	25	Somewhat limited Slope	0.92	Very limited Slope Depth to bedrock Droughty	1.00 0.42 0.23
Tu: Hennings-----	100	Not limited		Not limited	
VaF: Valentine-----	100	Very limited Too sandy Slope	1.00 0.08	Very limited Slope Droughty	1.00 0.86
VaG: Valentine-----	100	Very limited Too sandy Slope	1.00 1.00	Very limited Slope Droughty	1.00 0.89
VbD: Valentine-----	100	Somewhat limited Too sandy	0.96	Somewhat limited Droughty	0.79
VcF: Valentine-----	75	Very limited Too sandy	1.00	Somewhat limited Droughty Slope	0.83 0.63

RECREATIONAL INTERPRETATIONS--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Paths and trails		Golf fairways	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Longpine-----	25	Not limited		Very limited Depth to bedrock Droughty Slope	1.00 1.00 0.63
VdC: Valentine-----	40	Somewhat limited Too sandy	0.96	Somewhat limited Droughty	0.79
Valentine-----	30	Somewhat limited Too sandy	0.95	Somewhat limited Droughty	0.05
Wewela-----	30	Somewhat limited Too sandy	0.92	Somewhat limited Depth to bedrock Droughty	0.42 0.03
VdF: Valentine-----	40	Somewhat limited Too sandy Slope	0.96 0.18	Very limited Slope Droughty	1.00 0.97
Valentine-----	30	Somewhat limited Too sandy Slope	0.95 0.18	Very limited Slope Droughty	1.00 0.03
Wewela-----	30	Somewhat limited Too sandy	0.92	Somewhat limited Depth to bedrock Droughty Slope	0.42 0.09 0.00
Ve: Verdel-----	100	Not limited		Not limited	
VeB: Verdel-----	100	Not limited		Not limited	
VeC: Verdel-----	100	Not limited		Not limited	
Vo: Vetal-----	100	Not limited		Not limited	
Vt: Vetal-----	100	Not limited		Not limited	
VtB: Vetal-----	100	Not limited		Not limited	
VtC: Vetal-----	100	Not limited		Not limited	
WeB: Wewela-----	100	Not limited		Somewhat limited Depth to bedrock	0.42
WeC: Wewela-----	100	Not limited		Somewhat limited Depth to bedrock	0.42
zwa: Water-----	100	Not rated		Not rated	
zwb: Water-----	100	Not rated		Not rated	

WILDLIFE INTERPRETATIONS
Keya Paha County, Nebraska

Use and Explanation of Wildlife Interpretations

Soils directly affect the kind and amount of vegetation that is available to wildlife as food and cover. They also affect the development of water impoundments. The kind and abundance of wildlife that populate an area depend largely on the amount and distribution of food, cover, water, and living space. If any one of these elements is missing, inadequate, or inaccessible, wildlife will be scarce or will not inhabit the area. If the soils have the potential, wildlife habitat can be created or improved by planting appropriate vegetation, properly managing the existing plant cover, and fostering the natural establishment of desirable plants.

In the Wildlife Interpretations table, the soils in the survey area are rated according to their potential for providing habitat for various kinds of wildlife. This information can be used in planning parks, wildlife refuges, nature study areas, and other developments for wildlife; in selecting soils that are suitable for establishing, improving, or maintaining specific elements of wildlife habitat; and in determining the intensity of management needed for each element of the habitat.

Suitability Ratings

The potential of the soil is rated good, fair, poor, or very poor.

Good - means that the element of wildlife habitat or the kind of habitat is easily created, improved, or maintained. Few or no limitations affect management, and satisfactory results can be expected if the soil is used for the designated purpose.

Fair - means that the element of wildlife habitat or kind of habitat can be created, improved, or maintained in most places. Moderately intensive management is required for satisfactory results.

Poor - means that limitations are severe for the designated element or kind of wildlife habitat. Habitat can be created, improved, or maintained in most places, but management is difficult and requires intensive effort.

Very Poor - means that limitations are very severe for the designated element or kind of wildlife habitat. Habitat is difficult to create, improve, or maintain in most places, and management is difficult and requires intensive effort.

Description of Wildlife Habitat Elements

Openland habitat consists of croplands, pastures, meadows, and areas that are overgrown with grasses, herbs, shrubs, and vines. These areas produce grain and seed crops, grasses and legumes, and wild herbaceous plants. The kind of wildlife attracted to these areas include bobwhite quail, pheasant, meadowlark, field sparrow, killdeer, cottontail rabbit, red fox, and coyote.

Woodland habitat consists of hardwood or conifers, or a mixture of these and associated grasses, legumes and wild herbaceous plants. Examples of wildlife attracted to this habitat are wild turkey, thrushes, woodpeckers, owl, tree squirrels, raccoon, and deer.

Wetland habitat consists of water-tolerant plants in open, marshy or swampy, shallow water areas. Examples of wildlife attracted to this habitat are ducks, geese, herons, bitterns, rails, kingfishers, shorebirds, muskrat, mink, and beaver.

The elements of wildlife habitat are described in the following paragraphs.

Grain and seed crops are domestic grains and seed-producing herbaceous plants. Soil properties and features that affect the growth of grain and seed crops are depth of the root zone, texture of the surface layer, available water capacity, wetness, slope, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of grain and seed crops are corn, wheat, oats, and barley.

Grasses and legumes are domestic perennial grasses and herbaceous legumes. Soil properties and features that affect the growth of grasses and legumes are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, flooding, and slope. Soil temperature and soil moisture also are considerations. Examples of grasses and legumes are fescue, lovegrass, bromegrass, clover, and alfalfa.

Wild herbaceous plants are native or naturally established grasses and forbs, including weeds. Soil properties and features that affect the growth of these plants are depth of the root zone, texture of the surface layer, available water capacity, wetness, surface stoniness, and flooding. Soil temperature and soil moisture also are considerations. Examples of wild herbaceous plants are bluestem, goldenrod, beggarweed, wheatgrass, and grama.

Hardwood trees and woody understory produce nuts or other fruit, buds, catkins, twigs, bark, and foliage. Soil properties and features that affect the growth of hardwood trees and shrubs are depth of the root zone, available water capacity, and wetness. Examples of these plants are oak, poplar, cherry, sweetgum, apple, hawthorn, dogwood, hickory, blackberry, and blueberry. Examples of fruit-producing shrubs that are suitable for planting on soils rated good are Russian-olive, autumn-olive, and crabapple.

Coniferous plants furnish browse and seeds. Soil properties and features that affect the growth of coniferous trees, shrubs, and ground cover are depth of the root zone, available water capacity, and wetness. Examples of coniferous plants are pine, spruce, fir, cedar, and juniper.

Shrubs are bushy woody plants that produce fruit, buds, twigs, bark, and foliage. Soil properties and features that affect the growth of shrubs are depth of the root zone, available water capacity, salinity, and soil moisture. Examples of shrubs are fragrant sumac, chokecherry, American plum, sand plum, and gorden currant.

Wetland plants are annual and perennial wild herbaceous plants that grow on moist or wet sites. Submerged or floating aquatic plants are excluded. Soil properties and features affecting wetland plants are texture of the surface layer, wetness, reaction, salinity, slope, and surface stoniness. Examples of wetland plants are smartweed, wild millet, saltgrass, cordgrass, rushes, sedges, and cattails.

Shallow water areas have an average depth of less than 5 feet. Some are naturally wet areas. Others are created by dams, levees, or other water-control structures. Soil properties and features affecting shallow water areas are depth to bedrock, wetness, surface stoniness, slope, and permeability. Examples of shallow water areas are marshes, waterfowl feeding areas, and ponds.

The habitat for various kinds of wildlife is described in the following paragraphs.

Habitat for openland wildlife consists of cropland, pasture, meadows, and areas that are overgrown with grasses, herbs, shrubs, and vines. These areas produce grain and seed crops, grasses and legumes, and wild herbaceous plants. Wildlife attracted to these areas include bobwhite quail, pheasant, meadowlark, field sparrow, cottontail, red fox and coyote.

Habitat for woodland wildlife consists of areas of deciduous and/or coniferous plants and associated grasses, legumes, and wild herbaceous plants. Wildlife attracted to these areas include wild turkey, thrushes, woodpeckers, squirrels, gray fox, raccoon, and deer.

Habitat for wetland wildlife consists of open, marshy or swampy shallow water areas. Some of the wildlife attracted to such areas are ducks, geese, herons, shore birds, muskrat, mink, and beaver.

Habitat for rangeland wildlife consists of areas of shrubs and wild herbaceous plants. Wildlife attracted to rangeland include antelope, deer, cottontail rabbit, prairie chicken, meadowlark, quail, and pheasant.

WILDLIFE INTERPRETATIONS
Keya Paha County, Nebraska

Map symbol and soil name	Potential for habitat elements								Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hard- wood trees	Conif- erous plants	Shrubs	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life	Range- land wild- life
Ab: ALBATON VARIANT-	Poor	Fair	Fair	Poor	Fair	Fair	Poor	Good	Fair	Poor	Fair	Fair
AmB: ANSELMO-----	Fair	Good	Good	Fair	Fair	Fair	Very poor	Very poor	Good	Good	Very poor	Good
An: ANSELMO-----	Good	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor	Good
AnC: ANSELMO-----	Fair	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor	Good
Ba: BARNEY-----	Very poor	Poor	Fair	Poor	Poor	Poor	Good	Good	Poor	Fair	Good	Fair
Bo: BOEL-----	Fair	Fair	Good	Good	Good	Good	Fair	Fair	Fair	Good	Poor	Fair
Bt: BROCKSBURG-----	Good	Good	Good	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor	Fair
Cb: CASS-----	Good	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor	Good
CcB: CASS-----	Good	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor	Good
DdB: DUDA-----	Poor	Fair	Fair	Poor	Very poor	Poor	Very poor	Very poor	Poor	Very poor	Very poor	Fair
DdC: DUDA-----	Very poor	Very poor	Fair	Poor	Very poor	Poor	Very poor	Very poor	Very poor	Very poor	Very poor	Fair
DuB: DUNDAY-----	Fair	Good	Good	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor	Good
DxB: DUNDAY-----	Fair	Good	Good	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor	Good
DUDA-----	Poor	Fair	Fair	Poor	Very poor	Poor	Very poor	Very poor	Poor	Very poor	Very poor	Fair
Eo: ELS-----	Poor	Poor	Fair	Fair	Fair	Fair	Fair	Fair	Poor	Fair	Fair	Fair
Es: ELSMERE-----	Poor	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Poor	Fair	Fair	Fair
Ho: HOLT-----	Fair	Fair	Good	Fair	Very poor	Good	Very poor	Very poor	Fair	Very poor	Very poor	Good
HoC: HOLT-----	Fair	Fair	Good	Fair	Very poor	Good	Very poor	Very poor	Fair	Very poor	Very poor	Good
HtC: HOLT-----	Fair	Fair	Good	Fair	Very poor	Good	Very poor	Very poor	Fair	Very poor	Very poor	Good
LONGPINE-----	Poor	Poor	Poor	Poor	Poor	Poor	Very poor	Very poor	Very poor	Poor	Very poor	Poor
HtD: HOLT-----	Poor	Fair	Good	Fair	Very poor	Good	Very poor	Very poor	Poor	Very poor	Very poor	Good
LONGPINE-----	Poor	Poor	Poor	Poor	Poor	Poor	Very poor	Very poor	Very poor	Poor	Very poor	Poor
IfD: INVALE-----	Poor	Fair	Good	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor	Fair

WILDLIFE INTERPRETATIONS--Continued
Keya Paha County, Nebraska

Map symbol and soil name	Potential for habitat elements								Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hard- wood trees	Conif- erous plants	Shrubs	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life	Range- land wild- life
IgB: INVALE-----	Very poor	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor	Fair
IhB: INVALE-----	Fair	Fair	Good	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor	Good
IpB: IPAGE-----	Poor	Good	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair	Fair
Ja: JANSEN-----	Fair	Good	Good	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor	Fair
Jn: JANSEN-----	Good	Good	Good	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor	Fair
JnC: JANSEN-----	Fair	Good	Good	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor	Fair
JoB: JANSEN-----	Good	Good	Good	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor	Fair
MEADIN-----	Poor	Poor	Fair	Poor	Poor	Fair	Very poor	Very poor	Poor	Poor	Very poor	Fair
LaD: LABU-----	Fair	Good	Fair	Fair	Fair	Fair	Poor	Very poor	Fair	Fair	Very poor	Fair
LcF: LABU-----	Poor	Fair	Fair	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor	Fair
SANSARC-----	Very poor	Very poor	Fair	Poor	Very poor	Fair	Very poor	Very poor	Very poor	Very poor	Very poor	Fair
Lo: LOUP-----	Very poor	Poor	Fair	Poor	Poor	Fair	Good	Good	Poor	Poor	Good	Fair
Lp: LOUP-----	Very poor	Poor	Fair	Poor	Poor	Fair	Good	Good	Poor	Poor	Good	Fair
MaB: HOLT VARIANT----	Fair	Fair	Good	Fair	Very poor	Good	Very poor	Very poor	Fair	Very poor	Very poor	Good
MaC: HOLT VARIANT----	Fair	Fair	Good	Fair	Very poor	Good	Very poor	Very poor	Fair	Very poor	Very poor	Good
MfC: HOLT VARIANT----	Fair	Fair	Good	Fair	Very poor	Good	Very poor	Very poor	Fair	Very poor	Very poor	Good
MkG: MARIAVILLE-----	Poor	Poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor	Poor
KEOTA-----	Poor	Poor	Fair	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor	Fair
Mm: MARLAKE-----	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Good	Good	Very poor	Very poor	Good	Very poor
MnF: MEADIN-----	Very poor	Poor	Poor	Poor	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor	Fair
Mu: MUNJOR-----	Good	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor	Good
OaB: O'NEILL-----	Fair	Good	Good	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor	Fair

WILDLIFE INTERPRETATIONS--Continued
Keya Paha County, Nebraska

Map symbol and soil name	Potential for habitat elements								Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hard- wood trees	Conif- erous plants	Shrubs	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life	Range- land wild- life
Oe: O'NEILL-----	Fair	Good	Good	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor	Fair
OeC: O'NEILL-----	Fair	Good	Good	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor	Fair
OeD: O'NEILL-----	Poor	Fair	Good	Fair	Fair	Fair	Very poor	Very poor	Fair	Fair	Very poor	Fair
OhB: O'NEILL-----	Fair	Good	Good	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor	Fair
MEADIN-----	Poor	Poor	Fair	Poor	Poor	Fair	Very poor	Very poor	Poor	Poor	Very poor	Fair
OkD: O'NEILL-----	Fair	Good	Good	Fair	Fair	Fair	Very poor	Very poor	Good	Fair	Very poor	Fair
VALENTINE-----	Poor	Fair	Fair	Poor	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor	Fair
On: ONITA-----	Good	Good	Good	Good	Very poor	Very poor	Very poor	Very poor	Good	Very poor	Very poor	Good
Or: ORD-----	Good	Good	Good	Good	Good	Good	Fair	Fair	Good	Good	Fair	Good
LOUP-----	Very poor	Poor	Fair	Poor	Poor	Fair	Good	Good	Poor	Poor	Good	Fair
Pf: PAKA-----	Good	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor	Good
Ph: PAKA-----	Good	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor	Good
PhB: PAKA-----	Good	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor	Good
PERCHED WT-----	---	---	---	---	---	---	---	---	---	---	---	---
PmC: PAKA-----	Fair	Good	Good	Good	Good	Good	Poor	Very poor	Fair	Good	Very poor	Good
MARIAVILLE-----	Poor	Poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor	Poor
PmF: PAKA-----	Poor	Fair	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor	Good
MARIAVILLE-----	Poor	Poor	Poor	Fair	Fair	Fair	Very poor	Very poor	Poor	Fair	Very poor	Poor
RaB: REE-----	Good	Good	Good	Good	Very poor	Very poor	Very poor	Very poor	Good	Very poor	Very poor	Good
Rb: REE-----	Good	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor	Good
ReC: RELIANCE-----	Good	Good	Good	Good	Very poor	Very poor	Very poor	Very poor	Good	Very poor	Very poor	Good
RoD: RONSON-----	Poor	Fair	Good	Poor	Very poor	---	Very poor	Very poor	Poor	Very poor	Very poor	Good
ANSELMO-----	Fair	Good	Good	Good	Good	Good	Very poor	Very poor	Good	Good	Very poor	Good

WILDLIFE INTERPRETATIONS--Continued
Keya Paha County, Nebraska

Map symbol and soil name	Potential for habitat elements								Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hard- wood trees	Conif- erous plants	Shrubs	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life	Range- land wild- life
RoF: RONSON-----	Very poor	Poor	Good	Poor	Very poor	---	Very poor	Very poor	Very poor	Very poor	Very poor	Good
ANSELMO-----	Poor	Fair	Good	Good	Good	Good	Very poor	Very poor	Fair	Good	Very poor	Good
RtB: RONSON-----	Fair	Fair	Good	Poor	Very poor	---	Very poor	Very poor	Fair	Very poor	Very poor	Good
LONGPINE-----	Poor	Poor	Poor	Poor	Poor	Poor	Very poor	Very poor	Very poor	Poor	Very poor	Poor
SaG: SANSARC-----	Very poor	Very poor	Fair	Poor	Very poor	Fair	Very poor	Very poor	Very poor	Very poor	Very poor	Fair
ScF: SCHAMBER-----	Very poor	Very poor	Poor	Poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Very poor	Poor
SmF: SIMEON-----	Poor	Poor	Fair	Poor	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor	Fair
HOLT VARIANT----	Poor	Fair	Good	Fair	Very poor	Good	Very poor	Very poor	Poor	Very poor	Very poor	Good
RONSON-----	Very poor	Poor	Good	Poor	Very poor	---	Very poor	Very poor	Very poor	Very poor	Very poor	Good
SvF2: SIMEON-----	Poor	Poor	Fair	Poor	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor	Fair
VALENTINE-----	Poor	Fair	Fair	Poor	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor	Fair
SwB: SIMEON-----	Poor	Poor	Fair	Poor	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor	Fair
VALENTINE-----	Fair	Good	Fair	Poor	Fair	Fair	Very poor	Very poor	Fair	Poor	Very poor	Fair
TaF: LONGPINE-----	Poor	Poor	Poor	Poor	Poor	Poor	Very poor	Very poor	Very poor	Poor	Very poor	Poor
TdE: LONGPINE-----	Poor	Poor	Poor	Poor	Poor	Poor	Very poor	Very poor	Very poor	Poor	Very poor	Poor
DUDA-----	Very poor	Very poor	Fair	Poor	Very poor	Poor	Very poor	Very poor	Very poor	Very poor	Very poor	Fair
WT AT 0-1 FOOT--	---	---	---	---	---	---	---	---	---	---	---	---
TrG: LONGPINE-----	Very poor	Very poor	Poor	Poor	Poor	Poor	Very poor	Very poor	Very poor	Poor	Very poor	Poor
RONSON-----	Very poor	Poor	Good	Poor	Very poor	---	Very poor	Very poor	Very poor	Very poor	Very poor	Good
DUDA-----	Very poor	Very poor	Fair	Poor	Very poor	Poor	Very poor	Very poor	Very poor	Very poor	Very poor	Fair
Tu: HENNING-----	Good	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor	Good
VaF: VALENTINE-----	Poor	Fair	Fair	Poor	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor	Fair
VaG: VALENTINE-----	Very poor	Very poor	Fair	Poor	Poor	Poor	Very poor	Very poor	Poor	Poor	Very poor	Fair
VbD: VALENTINE-----	Poor	Fair	Fair	Poor	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor	Fair

WILDLIFE INTERPRETATIONS--Continued
Keya Paha County, Nebraska

Map symbol and soil name	Potential for habitat elements								Potential as habitat for--			
	Grain and seed crops	Grasses and legumes	Wild herba- ceous plants	Hard- wood trees	Conif- erous plants	Shrubs	Wetland plants	Shallow water areas	Open- land wild- life	Wood- land wild- life	Wetland wild- life	Range- land wild- life
VcF: VALENTINE-----	Poor	Fair	Fair	Poor	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor	Fair
LONGPINE-----	Poor	Poor	Poor	Poor	Poor	Poor	Very poor	Very poor	Very poor	Poor	Very poor	Poor
VdC: VALENTINE-----	Poor	Fair	Fair	Poor	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor	Fair
VALENTINE-----	Poor	Fair	Fair	Fair	Fair	Fair	Poor	Very poor	Poor	Fair	Very poor	Fair
WEWELA-----	Poor	Fair	Good	Fair	Very poor	---	Very poor	Very poor	Poor	Very poor	Very poor	Good
VdF: VALENTINE-----	Poor	Fair	Fair	Poor	Poor	Poor	Very poor	Very poor	Fair	Poor	Very poor	Fair
VALENTINE-----	Poor	Fair	Fair	Fair	Fair	Fair	Poor	Very poor	Poor	Fair	Very poor	Fair
WEWELA-----	Poor	Fair	Good	Fair	Very poor	---	Very poor	Very poor	Poor	Very poor	Very poor	Good
Ve: VERDEL-----	Good	Good	Fair	Good	Good	Fair	Poor	Very poor	Good	Good	Very poor	Fair
VeB: VERDEL-----	Good	Good	Fair	Good	Good	Fair	Poor	Very poor	Good	Good	Very poor	Fair
VeC: VERDEL-----	Fair	Good	Fair	Good	Good	Fair	Poor	Very poor	Fair	Good	Very poor	Fair
Vo: VETAL-----	Good	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor	Good
Vt: VETAL-----	Good	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor	Good
VtB: VETAL-----	Good	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor	Good
VtC: VETAL-----	Fair	Good	Good	Good	Good	Good	Poor	Very poor	Good	Good	Very poor	Good
WeB: WEWELA-----	Fair	Fair	Good	Fair	Very poor	---	Very poor	Very poor	Fair	Very poor	Very poor	Good
WeC: WEWELA-----	Fair	Fair	Good	Fair	Very poor	---	Very poor	Very poor	Fair	Very poor	Very poor	Good
zwa: WATER-----	---	---	---	---	---	---	---	---	---	---	---	---
zwb: WATER-----	---	---	---	---	---	---	---	---	---	---	---	---

YIELDS PER ACRE OF PASTURE AND HAYLAND
Keya Paha County, Nebraska

Use and Explanation of Pastureland and Hayland Interpretations

This subsection provides information concerning the suitability of soils for the production of pasture and hayland. This subsection may contain pasture and hayland suitability groupings, land capability and yield estimates, yield estimates for individual grasses or legumes, or other information pertaining to the production of forage.

Pasture and Hayland Suitability Groupings

Soils are placed in pasture and hayland groups according to their suitability for the production of forage. The soils in each group are enough alike to be suited to the same grasses or legumes, to have similar limitations and hazards, to require similar management, and to have similar productivity and other responses to management. Thus, the pasture and hayland suitability group is a convenient way of grouping the soils for their management. If used, these groupings are identified and described in other reports in the subsection.

Yield Estimates

The average yields per acre that can be expected of the principal pasture or hayland crops, under a high level of management, are presented in this subsection. In any given year, yields may be higher or lower than those indicated in the tables because of variations in rainfall or other climatic factors. The yields are based mainly on the experience and records of farmers, conservationists, and extension agents. Available yield data from nearby counties and results of field trials and demonstrations are also considered.

Under good management, proper grazing is essential for the production of high quality forage, stand survival, and erosion control. Proper grazing helps plants maintain sufficient and generally vigorous top growth during the growing season. Brush control is essential in many areas, and weed control generally is needed. Rotation grazing and renovation are also important management practices.

The Pasture and Hayland table show yield estimates in tons per acre and animal unit months for pasture and hayland groups. An animal unit month is the amount of forage required by one animal unit (AU) for 30 days. On animal unit (AU) is one (1000 pound) mature cow and a calf up to weaning age (usually six months of age) or their equivalent. The Natural Resources Conservation Service uses 900 pounds of air dry forage as the amount needed to meet this requirement. To maintain a healthy and vigorous plant community, the degree of use should never be greater than 50 percent. Therefore only 25 percent of the total biomass grown is considered consumed by the grazing animal. Animal Unit Months can be converted to air dry pounds per acre production by multiplying the AUM by 30 days, then by 30 pounds per day, and then by four. This figure is the amount of total forage production.

Planners of management systems for individual fields or farms should consider the detailed information given in the description of each soil in the Nontechnical Description section. Specific information on plants and yields can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

(Yields in the "N" columns are for nonirrigated soils; those in the "I" columns are for irrigated soils. Yields are those that can be expected under a high level of nonirrigated and irrigated management by component. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)
Animal-unit-month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

Map symbol and soil name	Land capability		Alfalfa hay	
	N	I	N	I
			Tons	Tons
Ab: Albaton Variant-----	4w	---	2.50	---
AmB: Anselmo-----	3e	3e	1.50	4.00
An: Anselmo-----	2e	2e	2.00	5.00
AnC: Anselmo-----	3e	3e	1.90	4.90
Ba: Barney-----	5w	---	---	---
Bo: Boel-----	3w	3w	3.00	4.50
Bt: Brocksburg-----	2s	2s	2.00	5.20
Cb: Cass-----	1	1	1.30	5.30
CcB: Cass-----	6w	---	---	---
DdB: Duda-----	4e	4e	1.50	4.00
DdC: Duda-----	6e	4e	1.50	3.80
DuB: Dunday-----	4e	3e	1.60	4.00
DxB: Dunday-----	4e	3e	1.60	4.00
Duda-----	4e	4e	1.60	4.00
Eo: Els-----	6e	4w	---	3.50
Es: Elsmere-----	4w	4w	2.00	4.00
Ho: Holt-----	3e	3e	2.00	4.80
HoC: Holt-----	3e	3e	1.70	4.50
HtC: Holt-----	3e	3e	1.50	4.00
Longpine-----	6s	---	1.50	4.00
HtD: Holt-----	4e	4e	1.50	4.00
Longpine-----	6s	---	1.50	4.00
IfD: Inavale-----	6e	4e	---	2.50
IgB: Inavale-----	6w	---	---	---
IhB: Inavale-----	4e	3e	1.50	4.00
IpB: Ipage-----	4e	4e	1.00	4.00
Ja: Jansen-----	2e	2e	1.80	4.50
Jn: Jansen-----	2s	2s	1.50	5.00

(Yields in the "N" columns are for nonirrigated soils; those in the "I" columns are for irrigated soils. Yields are those that can be expected under a high level of nonirrigated and irrigated management by component. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)
Animal-unit-month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

Map symbol and soil name	Land capability		Alfalfa hay	
	N	I	N	I
			Tons	Tons
JnC: Jansen-----	3e	3e	1.30	4.40
JoB: Jansen-----	2s	2s	1.00	4.20
Meadin-----	6s	4s	1.00	4.20
LaD: Labu-----	4e	4e	0.90	---
LcF: Labu-----	6e	---	---	---
Sansarc-----	6s	---	---	---
Lo: Loup-----	5w	---	---	---
Lp: Loup-----	5w	---	---	---
MaB: Holt Variant-----	3e	3e	1.50	4.30
MaC: Holt Variant-----	4e	4e	1.40	4.20
MfC: Holt Variant-----	3e	3e	1.70	4.50
MkG: Mariaville-----	7s	---	---	---
Keota-----	7e	---	---	---
Mm: Marlake-----	8w	---	---	---
MnF: Meadin-----	6s	---	---	---
Mu: Munjor-----	2e	2e	2.20	5.20
OaB: O'Neill-----	4e	3e	1.20	4.00
Oe: O'Neill-----	3e	3e	0.90	3.80
OeC: O'Neill-----	4e	4e	0.80	3.50
OeD: O'Neill-----	6e	4e	0.70	3.30
OhB: O'Neill-----	3e	3e	---	2.50
Meadin-----	6s	4s	---	2.50
OkD: O'Neill-----	3e	3e	---	2.50
Valentine-----	6e	4e	---	2.50
On: Onita-----	2c	1	1.60	5.50
Or: Ord-----	2w	2w	2.00	5.00
Loup-----	5w	---	2.00	5.00
Pf: Paka-----	2e	2e	1.90	4.50
Ph: Paka-----	2c	1	1.90	5.20

(Yields in the "N" columns are for nonirrigated soils; those in the "I" columns are for irrigated soils. Yields are those that can be expected under a high level of nonirrigated and irrigated management by component. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)
Animal-unit-month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

Map symbol and soil name	Land capability		Alfalfa hay	
	N	I	N	I
			Tons	Tons
PhB: Paka-----	2e	2e	1.70	4.50
Perched Wt-----	---	---	---	---
PmC: Paka-----	3e	3e	1.50	4.30
Mariaville-----	6s	---	1.50	4.30
PmF: Paka-----	6e	---	---	---
Mariaville-----	6s	---	---	---
RaB: Ree-----	2e	2e	1.30	4.50
Rb: Ree-----	2c	1	2.10	5.00
ReC: Reliance-----	3e	3e	1.30	5.00
RoD: Ronson-----	4e	4e	1.00	4.00
Anselmo-----	4e	4e	1.00	4.00
RoF: Ronson-----	6e	---	---	3.00
Anselmo-----	6e	---	---	3.00
RtB: Ronson-----	3e	3e	1.50	4.00
Longpine-----	6s	---	1.50	4.00
SaG: Sansarc-----	7e	---	---	---
ScF: Schamber-----	6s	---	---	---
SmF: Simeon-----	6s	---	---	---
Holt Variant-----	6e	4e	---	---
Ronson-----	6e	---	---	---
SvF2: Simeon-----	6s	---	---	---
Valentine-----	6e	---	---	---
SwB: Simeon-----	6s	4s	---	2.80
Valentine-----	4e	4e	---	2.80
TaF: Longpine-----	6s	---	---	---
TdE: Longpine-----	6s	---	---	---
Duda-----	6e	---	---	---
Wt At 0-1 Foot-----	---	---	---	---
TrG: Longpine-----	7s	---	---	---
Ronson-----	6e	---	---	---
Duda-----	6e	---	---	---

(Yields in the "N" columns are for nonirrigated soils; those in the "I" columns are for irrigated soils. Yields are those that can be expected under a high level of nonirrigated and irrigated management by component. Absence of a yield indicates that the soil is not suited to the crop or the crop generally is not grown on the soil)
Animal-unit-month: The amount of forage or feed required to feed one animal unit (one cow, one horse, one mule, five sheep, or five goats) for 30 days.

Map symbol and soil name	Land capability		Alfalfa hay	
	N	I	N	I
			Tons	Tons
Tu: Hennings-----	2e	2e	2.00	5.00
VaF: Valentine-----	6e	---	---	---
VaG: Valentine-----	7e	---	1.30	---
VbD: Valentine-----	6e	4e	---	3.00
VcF: Valentine-----	6e	---	---	---
Longpine-----	6s	---	---	---
VdC: Valentine-----	6e	4e	1.00	4.00
Valentine-----	6e	4e	1.00	4.00
Wewela-----	6e	4e	1.00	4.00
VdF: Valentine-----	6e	---	0.90	---
Valentine-----	6e	---	0.90	---
Wewela-----	6e	4e	0.90	---
Ve: Verdel-----	2s	2s	1.40	5.00
VeB: Verdel-----	2e	2e	1.40	4.90
VeC: Verdel-----	3e	3e	1.30	---
Vo: Vetal-----	2e	2e	1.80	5.20
Vt: Vetal-----	2c	1	2.70	6.00
VtB: Vetal-----	2e	2e	2.50	5.80
VtC: Vetal-----	3e	3e	1.70	5.00
WeB: Wewela-----	3e	3e	1.20	4.20
WeC: Wewela-----	3e	3e	1.00	4.00
zwa: Water-----	---	---	---	---
zwb: Water-----	---	---	---	---

CONSERVATION TREE AND SHRUB MANAGEMENT
Keya Paha County, Nebraska

A Conservation Tree/Shrub Suitability Group (CTSG), formerly Windbreak Suitability Group, is a physiographic unit or area having similar climatic and edaphic characteristics that control the selection and height growth of trees and shrubs.

In this table, the Conservation Tree and Shrub Grouping is expressed as a group index number. The group index for Conservation Tree and Shrub groups (CTSG) are a guide for species best suited for different kinds of soil and for prediction height, growth, and effectiveness. The groupings can be used when selection woody plants for windbreaks, wildlife plantings riparian buffers, reforestation, other environmental plantings, recreation, landscaping, wetland restoration or enhancement and critical area plantings. CTSG's are developed to assure satisfactory species selection and adaptation to specific conditions of soil, climate and physiography. CTSG's are a guide for selection species best suited for different kinds of soil and prediction height growth and effectiveness.

All soil series mapped in the state have been placed in 10 groups of similar soil characteristics. Groups 1, 2, 3, 4, 6, and 9 are further divided into subgroups. In addition, all groups provide information by Major Land Resource Areas.

Each tree or shrub species has certain climatic and physiographic limits. Within these parameters a tree or shrub may be well or poorly suited because of soil characteristics. Each tree or shrub also has definable potentials of height growth depending on the factors just mentioned. Accurate definitions of potential heights are necessary for proper windbreak planning and design.

Windbreaks protect livestock, buildings, roads and yards from wind and snow. They also protect fruit trees and gardens, and they furnish habitat for wildlife. Several rows of low-growing and high-growing broadleaf and coniferous trees and shrubs provide the most protection.

Field windbreaks are narrow plantings made at right angles to the prevailing wind and at specific intervals across the field. The interval depends on the erodibility of the soil. Field windbreaks protect cropland and crops from wind, help to keep snow on the fields, and provide food and cover for wildlife.

Environmental plantings help to beautify and screen houses and other buildings and to abate noise. The plants, mostly evergreen shrubs and trees, are closely spaced. To ensure plant survival, a healthy planting stock of suitable species should be planted properly on a well prepared site and maintained in good condition.

Windbreaks are often planted on land that did not grow trees originally. Knowledge of how trees perform on such land can be gained only by observing and recording their performance where trees have been planted and survived. The problem is compounded by the fact that many favorite windbreak species are not indigenous to the areas in which they are planted.

The Kansas Field Office Technical Guide Notice KS-230, Conservation Tree and Shrub Plantings Suitability Groups shows the adapted species listing for each group index number. Showing the height that locally grown trees and shrubs are expected to reach in 20 years on various soils. The estimates are based on measurements and observation of established plantings that have been given adequate care. This information should be used to determine the placement of a windbreak, the area protected and the arrangement of species.

A number of attributes are included in the CTSG species tables for each group number found in this section of the Field Office Technical Guide. These attributes were rated subjectively and assigned a relative value to further assist those unfamiliar with individual species characteristics or desirability for the intended use. Definitions and explanations can be found. Additional information on planning windbreaks and screens and planting and caring for trees and shrubs can be obtained from the local office of the Natural Resources Conservation Service or of the Cooperative Extension Service or from a commercial nursery. See part 537 of the National Forestry Manual for additional information.

In the Tree and Shrub Management table interpretive ratings are given for various aspects of forest and conservation tree and shrub management. Some rating class terms indicate the degree to which the soils are suited to a specified forest management practice. Well suited indicates that the soil has features that are favorable for the specified practice and has no limitations. Good performance can be expected, and little or no maintenance is needed. Moderately well suited indicates that the soil has features that are moderately favorable for the specified practice. One or more soil properties are less than desirable and fair performance can be expected. Some maintenance is needed. Poorly suited indicates that the soil has one or more properties that are unfavorable for the specified practice. Overcoming the unfavorable properties requires special design, extra maintenance, and costly alteration. Unsited indicates that the expected performance of the soil is unacceptable for the specified practice or that extreme measures are needed to overcome the undesirable soil properties.

The paragraphs that follow indicate the soil properties considered in rating the soils for forest and conservation tree and shrub management practices. More detailed information about the criteria used in the ratings is available in the "National Forestry Manual," which is available in local offices of the Natural Resources Conservation Service or on the Internet. Also, in the Kansas Field Office Technical Guide Notice KS-230, Conservation Tree and Shrub Plantings Suitability Groups.

Ratings in the columns suitability for hand planting and suitability for mechanical planting are based on slope, depth to a restrictive layer, content of sand, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, moderately well suited, poorly suited, or unsited to these methods of planting. It is assumed that necessary site preparation is completed before seedlings are planted.

Ratings in the column suitability for mechanical site preparation (surface) are based on slope, depth to a restrictive layer, plasticity index, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, poorly suited, or unsited to this management activity. The part of the soil from the surface to a depth of about 1-foot is considered in the ratings.

Ratings in the column suitability for mechanical site preparation (deep) are based on slope, depth to a restrictive layer, rock fragments on or below the surface, depth to a water table, and ponding. The soils are described as well suited, poorly suited, or unsited to this management activity. The part of the soil from the surface to a depth of about 3 feet is considered in the ratings.

Ratings in the column potential for seedling mortality are based on flooding, ponding, depth to a water table, content of lime, reaction, salinity, available water capacity, soil moisture regime, soil temperature regime, aspect, and slope. The soils are described as having a low, moderate, or high potential for seedling mortality. See the National Forestry Manual, Subpart B for criteria used in rating management concerns. Specific information on plants and yields can be obtained from the local office of the Natural Resources Conservation Service or the Cooperative Extension Service.

CONSERVATION TREE AND SHRUB MANAGEMENT
Keya Paha County,
Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. Pines and spruces are prone to disease problems. See text for further explanation of ratings in this table.)

Map symbol and soil name	Wind break Group	Suitability for hand planting	Suitability for mechanical planting	Suitability for mechanical site preparation (surface)	Suitability for mechanical site preparation (deep)	Potential for seedling mortality
		Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features
Ab: Albaton Variant-----		Poorly suited Stickiness	Poorly suited Stickiness	Poorly suited Stickiness	Well suited	Moderate Soil reaction
AmB: Anselmo-----		Well suited	Well suited	Well suited	Well suited	Low
An: Anselmo-----		Well suited	Well suited	Well suited	Well suited	Low
AnC: Anselmo-----		Well suited	Well suited	Well suited	Well suited	Low
Ba: Barney-----		Well suited	Well suited	Well suited	Well suited	High Wetness
Bo: Boel-----		Moderately suited Sandiness	Moderately suited Sandiness	Well suited	Well suited	Low
Bt: Brocksburg-----		Well suited	Well suited	Well suited	Well suited	Low
Cb: Cass-----		Well suited	Well suited	Well suited	Well suited	Low
CcB: Cass-----		Well suited	Well suited	Well suited	Well suited	Low
DdB: Duda-----		Well suited	Well suited	Well suited	Well suited	Low
DdC: Duda-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
DuB: Dunday-----		Well suited	Well suited	Well suited	Well suited	Low
DxB: Dunday-----		Well suited	Well suited	Well suited	Well suited	Low
Duda-----		Well suited	Well suited	Well suited	Well suited	Low
Eo: Els-----		Well suited	Well suited	Well suited	Well suited	Low
Es: Elsmere-----		Well suited	Well suited	Well suited	Well suited	Low
Ho: Holt-----		Well suited	Well suited	Well suited	Well suited	Low
HoC: Holt-----		Well suited	Well suited	Well suited	Well suited	Low
HtC: Holt-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
Longpine-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
HtD: Holt-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
Longpine-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
IfD: Inavale-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
IgB: Inavale-----		Well suited	Well suited	Well suited	Well suited	Low
IhB: Inavale-----		Well suited	Well suited	Well suited	Well suited	Low
IpB: Ipage-----		Well suited	Well suited	Well suited	Well suited	Low
Ja: Jansen-----		Well suited	Well suited	Well suited	Well suited	Low
Jn: Jansen-----		Well suited	Well suited	Well suited	Well suited	Low
JnC: Jansen-----		Well suited	Well suited	Well suited	Well suited	Low
JoB: Jansen-----		Well suited	Well suited	Well suited	Well suited	Low
Meadin-----		Well suited	Moderately suited Rock fragments	Well suited	Well suited	Low
LaD: Labu-----		Poorly suited Stickiness	Poorly suited Stickiness	Poorly suited Stickiness	Well suited	Low

CONSERVATION TREE AND SHRUB MANAGEMENT
Keya Paha County,
Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. Pines and spruces are prone to disease problems. See text for further explanation of ratings in this table.)

Map symbol and soil name	Wind break Group	Suitability for hand planting	Suitability for mechanical planting	Suitability for mechanical site preparation (surface)	Suitability for mechanical site preparation (deep)	Potential for seedling mortality
		Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features
LcF: Labu-----		Poorly suited Stickiness	Slope Poorly suited Slope Stickiness	Poorly suited Slope Stickiness	Poorly suited Slope	Low
Sansarc-----		Poorly suited Stickiness	Poorly suited Slope Stickiness	Poorly suited Slope Stickiness	Poorly suited Slope	Low
Lo: Loup-----		Well suited	Well suited	Well suited	Well suited	High Wetness
Lp: Loup-----		Well suited	Well suited	Well suited	Well suited	High Wetness
MaB: Holt Variant-----		Well suited	Well suited	Well suited	Well suited	Low
MaC: Holt Variant-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
MfC: Holt Variant-----		Well suited	Well suited	Well suited	Well suited	Low
MkG: Mariaville-----		Moderately suited Slope	Unsuited	Unsuited	Unsuited	Moderate
Keota-----		Well suited	Slope Unsuited Slope	Slope Poorly suited Slope	Slope Poorly suited Slope	Soil reaction Moderate Soil reaction
Mm: Marlake-----		Well suited	Well suited	Well suited	Well suited	High Wetness
MnF: Meadin-----		Well suited	Poorly suited Slope Rock fragments	Poorly suited Slope	Poorly suited Slope	Low
Mu: Munjor-----		Well suited	Well suited	Well suited	Well suited	Moderate Soil reaction
OaB: O'Neill-----		Well suited	Well suited	Well suited	Well suited	Low
Oe: O'Neill-----		Well suited	Well suited	Well suited	Well suited	Low
OeC: O'Neill-----		Well suited	Well suited	Well suited	Well suited	Low
OeD: O'Neill-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
OhB: O'Neill-----		Well suited	Well suited	Well suited	Well suited	Low
Meadin-----		Well suited	Moderately suited Rock fragments	Well suited	Well suited	Low
OkD: O'Neill-----		Well suited	Well suited	Well suited	Well suited	Low
Valentine-----		Moderately suited Sandiness	Moderately suited Sandiness Slope	Well suited	Well suited	Low
On: Onita-----		Well suited	Well suited	Well suited	Well suited	Low
Or: Ord-----		Well suited	Well suited	Well suited	Well suited	Moderate Lime Soil reaction
Loup-----		Well suited	Well suited	Well suited	Well suited	High Wetness
Pf: Paka-----		Well suited	Well suited	Well suited	Well suited	Low
Ph: Paka-----		Well suited	Well suited	Well suited	Well suited	Low
PhB: Paka-----		Well suited	Well suited	Well suited	Well suited	Low
Perched Wt-----		Unsuited Horizon table contains no data	Unsuited Horizon table contains no data	Unsuited Horizon table contains no data	Unsuited Horizon table contains no data	High Horizon table contains no data

CONSERVATION TREE AND SHRUB MANAGEMENT
Keya Paha County,
Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. Pines and spruces are prone to disease problems. See text for further explanation of ratings in this table.)

Map symbol and soil name	Wind break Group	Suitability for hand planting	Suitability for mechanical planting	Suitability for mechanical site preparation (surface)	Suitability for mechanical site preparation (deep)	Potential for seedling mortality
		Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features
PmC: Paka-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
Mariaville-----		Well suited	Moderately suited Slope	Well suited	Well suited	Moderate Soil reaction
PmF: Paka-----		Well suited	Poorly suited Slope	Poorly suited Slope	Poorly suited Slope	Low
Mariaville-----		Well suited	Poorly suited Slope	Poorly suited Slope	Poorly suited Slope	Moderate Soil reaction
RaB: Ree-----		Well suited	Well suited	Well suited	Well suited	Low
Rb: Ree-----		Well suited	Well suited	Well suited	Well suited	Low
ReC: Reliance-----		Moderately suited Stickiness	Moderately suited Stickiness	Well suited	Well suited	Low
RoD: Ronson-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
Anselmo-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
RoF: Ronson-----		Well suited	Poorly suited Slope	Poorly suited Slope	Poorly suited Slope	Low
Anselmo-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
RtB: Ronson-----		Well suited	Well suited	Well suited	Well suited	Low
Longpine-----		Well suited	Well suited	Well suited	Well suited	Low
SaG: Sansarc-----		Poorly suited Stickiness Slope	Unsuited Slope Stickiness	Poorly suited Slope Stickiness	Poorly suited Slope	Low
ScF: Schamber-----		Moderately suited Sandiness	Poorly suited Slope Rock fragments Sandiness	Poorly suited Slope	Poorly suited Slope	Low
SmF: Simeon-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
Holt Variant-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
Ronson-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
SvF2: Simeon-----		Moderately suited Sandiness	Moderately suited Slope Sandiness	Well suited	Well suited	Low
Valentine-----		Moderately suited Sandiness	Moderately suited Slope Sandiness	Well suited	Well suited	Low
SwB: Simeon-----		Well suited	Well suited	Well suited	Well suited	Low
Valentine-----		Moderately suited Sandiness	Moderately suited Sandiness	Well suited	Well suited	Low
TaF: Longpine-----		Well suited	Poorly suited Slope	Poorly suited Slope	Poorly suited Slope	Low
TdE: Longpine-----		Moderately suited Rock fragments	Poorly suited Rock fragments Slope	Poorly suited Rock fragments	Well suited	Low

CONSERVATION TREE AND SHRUB MANAGEMENT
Keya Paha County,
Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. Pines and spruces are prone to disease problems. See text for further explanation of ratings in this table.)

Map symbol and soil name	Wind break Group	Suitability for hand planting	Suitability for mechanical planting	Suitability for mechanical site preparation (surface)	Suitability for mechanical site preparation (deep)	Potential for seedling mortality
		Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features
Duda-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
Wt At 0-1 Foot-----		Unsuited Horizon table contains no data	Unsuited Horizon table contains no data	Unsuited Horizon table contains no data	Unsuited Horizon table contains no data	High Horizon table contains no data
TrG: Longpine-----		Moderately suited Slope	Unsuited Slope	Unsuited Slope	Unsuited Slope	Low
Ronson-----		Well suited	Poorly suited Slope	Poorly suited Slope	Poorly suited Slope	Low
Duda-----		Well suited	Poorly suited Slope	Poorly suited Slope	Poorly suited Slope	Low
Tu: Hennings-----		Well suited	Well suited	Well suited	Well suited	Low
VaF: Valentine-----		Moderately suited Sandiness	Poorly suited Slope Sandiness	Poorly suited Slope	Poorly suited Slope	Low
VaG: Valentine-----		Moderately suited Sandiness Slope	Unsuited Slope Sandiness	Unsuited Slope	Unsuited Slope	Low
VbD: Valentine-----		Moderately suited Sandiness	Moderately suited Sandiness Slope	Well suited	Well suited	Low
VcF: Valentine-----		Moderately suited Sandiness	Moderately suited Slope Sandiness	Well suited	Well suited	Low
Longpine-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
VdC: Valentine-----		Moderately suited Sandiness	Moderately suited Sandiness Slope	Well suited	Well suited	Low
Valentine-----		Moderately suited Sandiness	Moderately suited Sandiness Slope	Well suited	Well suited	Low
Wewela-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
VdF: Valentine-----		Well suited	Poorly suited Slope	Poorly suited Slope	Poorly suited Slope	Low
Valentine-----		Moderately suited Sandiness	Poorly suited Slope Sandiness	Poorly suited Slope	Poorly suited Slope	Low
Wewela-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
Ve: Verdel-----		Moderately suited Stickiness	Moderately suited Stickiness	Well suited	Well suited	Low
VeB: Verdel-----		Moderately suited Stickiness	Moderately suited Stickiness	Well suited	Well suited	Low
VeC: Verdel-----		Moderately suited Stickiness	Moderately suited Stickiness Slope	Well suited	Well suited	Low
Vo: Vetal-----		Well suited	Well suited	Well suited	Well suited	Low
Vt: Vetal-----		Well suited	Well suited	Well suited	Well suited	Low

CONSERVATION TREE AND SHRUB MANAGEMENT
Keya Paha County,
Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. Pines and spruces are prone to disease problems. See text for further explanation of ratings in this table.)

Map symbol and soil name	Wind break Group	Suitability for hand planting	Suitability for mechanical planting	Suitability for mechanical site preparation (surface)	Suitability for mechanical site preparation (deep)	Potential for seedling mortality
		Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features	Rating class and limiting features
VtB: Vetal-----		Well suited	Well suited	Well suited	Well suited	Low
VtC: Vetal-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
WeB: Wewela-----		Well suited	Well suited	Well suited	Well suited	Low
WeC: Wewela-----		Well suited	Moderately suited Slope	Well suited	Well suited	Low
zwa: Water-----		Not rated	Not rated	Not rated	Not rated	Not rated
zwb: Water-----		Not rated	Not rated	Not rated	Not rated	Not rated

ENGINEERING INDEX PROPERTIES
Keya Paha County, Nebraska

Engineering Index Properties table gives the engineering classifications and the range of index properties for the layers of each soil in the survey area. Depth to the upper and lower boundaries of each layer is indicated. Texture is given in the standard terms used by the U.S. Department of Agriculture. These terms are defined according to percentages of sand, silt, and clay in the fraction of the soil that is less than 2 millimeters in diameter. Loam, for example, is soil that is 7 to 27 percent clay, 28 to 50 percent silt, and less than 52 percent sand. If the content of particles coarser than sand is 15 percent or more, an appropriate modifier is added, for example, gravelly. Textural terms are defined in the Glossary.

Classification of the soils is determined according to the Unified soil classification system (ASTM, 1998) and the system adopted by the American Association of State Highway and Transportation Officials (AASHTO, 1998). The Unified system classifies soils according to properties that affect their use as construction material. Soils are classified according to particle-size distribution of the fraction less than 3 inches in diameter and according to plasticity index, liquid limit, and organic matter content. Sandy and gravelly soils are identified as GW, GP, GM, GC, SW, SP, SM, and SC; silty and clayey soils as ML, CL, OL, MH, CH, and OH; and highly organic soils as PT. Soils exhibiting engineering properties of two groups can have a dual classification, for example, CL-ML.

The AASHTO system classifies soils according to those properties that affect roadway construction and maintenance. In this system, the fraction of a mineral soil that is less than 3 inches in diameter is classified in one of seven groups from A-1 through A-7 on the basis of particle-size distribution, liquid limit, and plasticity index. Soils in group A-1 are coarse grained and low in content of fines (silt and clay). At the other extreme, soils in group A-7 are fine grained. Highly organic soils are classified in group A-8 on the basis of visual inspection. If laboratory data are available, the A-1, A-2, and A-7 groups are further classified as A-1-a, A-1-b, A-2-4, A-2-5, A-2-6, A-2-7, A-7-5, or A-7-6. As an additional refinement, the suitability of a soil as subgrade material can be indicated by a group index number. Group index numbers range from 0 for the best subgrade material to 20 or higher for the poorest. The AASHTO classification for soils tested, with group index numbers in parentheses, is given in Engineering Index Properties table.

Rock fragments larger than 10 inches in diameter and 3 to 10 inches in diameter are indicated as a percentage of the total soil on a dry-weight basis. The percentages are estimates determined mainly by converting volume percentage in the field to weight percentage. Percentage (of soil particles) passing designated sieves is the percentage of the soil fraction less than 3 inches in diameter based on an oven-dry weight. The sieves, numbers 4, 10, 40, and 200 (USA Standard Series), have openings of 4.76, 2.00, 0.420, and 0.074 millimeters, respectively. Estimates are based on laboratory tests of soils sampled in the survey area and in nearby areas and on estimates made in the field.

Liquid limit and plasticity index (Atterberg limits) indicate the plasticity characteristics of a soil. The estimates are based on test data from the survey area or from nearby areas and on field examination. The estimates of particle-size distribution, liquid limit, and plasticity index are generally rounded to the nearest 5 percent. Thus, if the ranges of gradation and Atterberg limits extend a marginal amount (1 or 2 percentage points) across classification boundaries, the classification in the marginal zone is generally omitted in the table.

ENGINEERING INDEX PROPERTIES--Continued
Keya Paha County, Nebraska

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
Ab: Albaton Variant	0-27 27-40 40-60	Clay Clay loam Sand	CH CL SM, SP-SM	A-7 A-6, A-7 A-1, A-2, A-3	0 0 0	0 0 0	100 100 90-100	100 100 90-100	95-100 90-100 40-70	95-100 70-80 5-20	60-80 37-48 ---	40-60 16-25 NP
AmB: Anselmo-----	0-17 17-54	Loamy fine sand Fine sandy loam	SC-SM, SM CL-ML, ML, SC-SM, SM	A-2 A-4	0 0	0 0	100 100	90-100 100	65-85 70-95	15-30 35-65	15-20 15-25	NP-5 NP-7
	54-60	Loamy fine sand	SC-SM, SM	A-4	0	0	100	100	70-85	40-50	15-25	NP-7
An: Anselmo-----	0-6 6-24	Fine sandy loam Fine sandy loam	CL-ML, ML, SC-SM, SM CL-ML, ML, SC-SM, SM	A-2, A-4 A-4	0 0	0 0	100 100	100 100	60-100 70-95	30-65 35-65	15-25 15-25	NP-7 NP-7
	24-60	Fine sand	SC-SM, SM	A-4	0	0	100	100	70-85	40-50	15-25	NP-7
AnC: Anselmo-----	0-6 6-44	Fine sandy loam Fine sandy loam	CL-ML, ML, SC-SM, SM CL-ML, ML, SC-SM, SM	A-2, A-4 A-4	0 0	0 0	100 100	100 100	60-100 70-95	30-65 35-65	15-25 15-25	NP-7 NP-7
	44-60	Loamy fine sand	SC-SM, SM	A-4	0	0	100	100	70-85	40-50	15-25	NP-7
Ba: Barney-----	0-7 7-30 30-60	Fine sandy loam Stratified sand to loam Sand	CL-ML, ML, SC-SM, SM ML, SM SC-SM, SM, SP, SP-SM	A-4 A-2, A-4 A-1, A-2, A-3	0 0 0	0 0	95-100 95-100 95-100	90-100 90-100 75-100	60-95 55-80 30-80	40-55 20-60 3-15	18-30 10-20 10-15	NP-7 NP-5 NP-5
Bo: Boel-----	0-7 7-60	Fine sandy loam Stratified sand to loam	SC-SM, SM SC-SM, SM, SP	A-2, A-4 A-2, A-3	0 0	0 0	100 100	100 95-100	85-95 85-95	20-40 0-25	15-20 10-20	NP-5 NP-5
Bt: Brocksburg----	0-15 15-30 30-80	Loam Clay loam Gravelly sand	CL, ML CL SM, SP, SP-SM	A-4, A-6 A-6, A-7 A-1, A-2, A-3	0 0 0	0 0 0	100 100 85-95	100 100 50-90	90-100 90-100 20-60	70-90 70-80 3-15	25-40 35-45 ---	3-15 11-20 NP
Cb: Cass-----	0-10 10-40 40-60	Loam Fine sandy loam Stratified loamy fine sand to loam	CL, CL-ML SC-SM, SM SM, SP-SM	A-4, A-6 A-2, A-4 A-2, A-3	0 0 0	0 0 0	95-100 100 95-100	95-100 95-100 95-100	85-95 85-95 50-75	60-75 20-50 5-30	25-40 15-20 10-15	5-15 NP-5 NP-4
CcB: Cass-----	0-10 10-40 40-60	Loam Fine sandy loam Stratified loamy fine sand to loam	CL, CL-ML SC-SM, SM SM, SP-SM	A-4, A-6 A-2, A-4 A-2, A-3	0 0 0	0 0 0	95-100 100 95-100	95-100 95-100 95-100	85-95 85-95 50-75	60-75 20-50 5-30	25-40 15-20 10-15	5-15 NP-5 NP-4
DdB: Duda-----	0-6 6-25 25-60	Loamy fine sand Loamy fine sand Weathered bedrock	SC-SM, SM SC-SM, SM	A-2 A-1, A-2	0 0 ---	0 0 ---	100 100 ---	100 100 ---	50-75 45-75 ---	15-40 15-35 ---	15-25 15-25 ---	NP-5 NP-5 ---
DdC: Duda-----	0-6 6-25 25-60	Loamy fine sand Loamy fine sand Weathered bedrock	SC-SM, SM SC-SM, SM	A-2 A-1, A-2	0 0 ---	0 0 ---	100 100 ---	100 100 ---	50-75 45-75 ---	15-40 15-35 ---	15-25 15-25 ---	NP-5 NP-5 ---
DuB: Dunday-----	0-15 15-60	Loamy fine sand Loamy fine sand	SC-SM, SM SC-SM, SM, SP-SM	A-2 A-2, A-3	0 0	0 0	100 100	100 100	90-100 50-95	13-35 5-35	15-25 15-25	NP-5 NP-5
DxB: Dunday-----	0-15 15-60	Loamy fine sand Fine sand	SC-SM, SM SC-SM, SM, SP-SM	A-2 A-2, A-3	0 0	0 0	100 100	100 100	90-100 50-95	13-35 5-35	15-25 15-25	NP-5 NP-5
	0-6 6-25 25-60	Loamy fine sand Loamy fine sand Weathered bedrock	SM, SC-SM SC-SM, SM	A-2 A-1, A-2	0 0 ---	0 0 ---	100 100 ---	100 100 ---	50-75 45-75 ---	15-40 15-35 ---	15-25 15-25 ---	NP-5 NP-5 ---
Eo: Els-----	0-7 7-13 13-60	Fine sand Fine sand Fine sand	SM, SP-SM SM, SP, SP-SM SM, SP, SP-SM	A-2, A-3 A-2, A-3 A-2, A-3	0 0 0	0 0 0	100 90-100 90-100	100 90-100 90-100	70-100 70-100 70-100	5-35 4-30 4-30	---	NP NP NP
Es: Elsmere-----	0-12 12-24 24-60	Loamy fine sand Loamy fine sand Fine sand	SM, SP-SM SM, SP-SM SM, SP-SM	A-2, A-3 A-2, A-3 A-2, A-3	0 0 0	0 0 0	100 100 100	100 100 100	70-100 60-100 60-100	5-35 5-30 5-30	10-20 5-15 5-15	NP-5 NP-5 NP-5
Ho: Holt-----	0-6 6-10 10-34	Fine sandy loam Fine sandy loam Loamy fine sand	SC-SM, SM SM SM	A-4 A-4 A-2, A-4	0 0 0	0 0 0	100 90-100 90-100	95-100 90-100 90-100	90-100 70-100 70-100	35-50 35-50 25-45	15-30 20-35 20-35	NP-7 NP-10 NP-10
HoC: Holt-----	0-6 6-10 10-34 34-60	Fine sandy loam Fine sandy loam Fine sandy loam Weathered bedrock	SC-SM, SM SM SM	A-4 A-4 A-2, A-4	0 0 0 ---	0 0 0 ---	100 90-100 90-100 ---	95-100 90-100 90-100 ---	90-100 70-100 70-100 ---	35-50 35-50 25-45 ---	15-30 20-35 20-35 ---	NP-7 NP-10 NP-10 ---

ENGINEERING INDEX PROPERTIES--Continued
Keya Paha County, Nebraska

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
					Pct	Pct					Pct	
HtC: Holt-----	In											
	0-6	Fine sandy loam	SC-SM, SM	A-4	0	0	100	95-100	90-100	35-50	15-30	NP-7
	6-10	Fine sandy loam	SM	A-4	0	0	90-100	90-100	70-100	35-50	20-35	NP-10
	10-34	Loamy fine sand	SM	A-2, A-4	0	0	90-100	90-100	70-100	25-45	20-35	NP-10
	34-60	Weathered bedrock			---	---	---	---	---	---	---	---
Longpine-----	0-9	Fine sandy loam	ML, SM	A-4	0	0	95-100	75-100	75-100	40-65	15-25	NP-7
	9-13	Gravelly fine sandy loam	SM	A-1, A-2	0	0-5	55-100	50-75	40-60	10-35	15-25	NP-5
	13-60	Unweathered bedrock			---	---	---	---	---	---	---	---
HtD: Holt-----	0-6	Fine sandy loam	SC-SM, SM	A-4	0	0	100	95-100	90-100	35-50	15-30	NP-7
	6-10	Fine sandy loam	SM	A-4	0	0	90-100	90-100	70-100	35-50	20-35	NP-10
	10-34	Fine sandy loam	SM	A-2, A-4	0	0	90-100	90-100	70-100	25-45	20-35	NP-10
	34-60	Weathered bedrock			---	---	---	---	---	---	---	---
Longpine-----	0-9	Fine sandy loam	ML, SM	A-4	0	0	95-100	75-100	75-100	40-65	15-25	NP-7
	9-13	Gravelly fine sandy loam	SM	A-1, A-2	0	0-5	55-100	50-75	40-60	10-35	15-25	NP-5
	13-60	Unweathered bedrock			---	---	---	---	---	---	---	---
IfD: Inavale-----	0-6	Fine sand	SC-SM, SM, SP-SM	A-2, A-3	0	0	100	90-100	65-85	5-30	15-25	NP-5
	6-24	Fine sand	SC-SM, SM, SP-SM	A-2, A-3	0	0	100	90-100	65-85	5-30	15-25	NP-5
	24-60	Stratified fine sand to fine sandy loam	SC-SM, SM, SP-SM	A-2, A-3	0	0	100	100	70-90	5-30	15-25	NP-5
IgB: Inavale-----	0-6	Fine sand	SC-SM, SM, SP-SM	A-2, A-3	0	0	100	90-100	65-85	5-30	15-25	NP-5
	6-24	Fine sand	SC-SM, SM, SP-SM	A-2, A-3	0	0	100	90-100	65-85	5-30	15-25	NP-5
	24-60	Stratified fine sand to fine sandy loam	SC-SM, SM, SP-SM	A-2, A-3	0	0	100	100	70-90	5-30	15-25	NP-5
IhB: Inavale-----	0-5	Loamy fine sand	SC-SM, SM, SP-SM	A-2, A-3	0	0	100	100	85-95	5-35	15-25	NP-5
	5-15	Fine sand	SC-SM, SM, SP-SM	A-2, A-3	0	0	100	90-100	65-85	5-30	15-25	NP-5
	15-60	Stratified sand to fine sandy loam	SC-SM, SM, SP-SM	A-2, A-3	0	0	100	100	70-90	5-30	15-25	NP-5
IpB: Ipage-----	0-6	Loamy fine sand	SM, SP-SM	A-2	0	0	100	100	50-90	10-35	---	NP
	6-60	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	95-100	50-100	2-30	---	NP
Ja: Jansen-----	0-6	Fine sandy loam	ML, SM	A-4	0	0	95-100	90-100	80-100	40-55	20-30	NP-6
	6-22	Clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	50-80	30-45	10-25
	22-33	Loamy coarse sand	SM, SP-SM	A-1, A-2, A-4	0	0	95-100	90-100	45-85	10-45	---	NP
	33-60	Gravelly coarse sand	SP, SP-SM, SW, SW-SM	A-1, A-2, A-3	0	0	85-100	45-100	35-65	3-10	---	NP
Jn: Jansen-----	0-9	Loam	CL, ML	A-4, A-6	0	0	100	100	90-100	50-95	25-40	3-15
	9-24	Clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	50-80	30-45	10-25
	24-27	Loamy sand	SM, SP-SM	A-1, A-2, A-4	0	0	95-100	90-100	45-85	10-45	---	NP
	27-60	Gravelly sand	SP, SP-SM, SW, SW-SM	A-1, A-2, A-3	0	0	85-100	45-100	35-65	3-10	---	NP
JnC: Jansen-----	0-9	Loam	CL, ML	A-4, A-6	0	0	100	100	90-100	50-95	25-40	3-15
	9-24	Clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	50-80	30-45	10-25
	24-27	Loamy sand	SM, SP-SM	A-1, A-2, A-4	0	0	95-100	90-100	45-85	10-45	---	NP
	27-60	Gravelly sand	SP, SP-SM, SW, SW-SM	A-3, A-1, A-2	0	0	85-100	45-100	35-65	3-10	---	NP
JoB: Jansen-----	0-12	Loam	CL, ML	A-4, A-6	0	0	100	100	90-100	50-95	25-40	3-15
	12-22	Clay loam	CL	A-6, A-7	0	0	95-100	90-100	80-100	50-80	30-45	10-25
	22-26	Loamy coarse sand	SM, SP-SM	A-1, A-2, A-4	0	0	95-100	90-100	45-85	10-45	---	NP
	26-60	Gravelly coarse sand	SP, SP-SM, SW, SW-SM	A-1, A-2, A-3	0	0	85-100	45-100	35-65	3-10	---	NP
Meadin-----	0-10	Loam	ML	A-4	0	0	85-100	75-95	60-80	50-65	25-35	3-10
	10-16	Very gravelly loamy sand	GM, GP-GM, SM, SP-SM	A-2, A-3	0	0	50-90	50-90	50-65	5-35	---	NP
	16-60	Gravelly sand	GP, GP-GM, SP, SP-SM	A-1	0	0	40-80	30-70	15-50	1-10	---	NP
LaD: Labu-----	0-36	Silty clay	CH, MH	A-7	0	0	100	95-100	90-100	85-100	50-90	20-55
	36-60	Weathered bedrock			---	---	---	---	---	---	---	---

ENGINEERING INDEX PROPERTIES--Continued
Keya Paha County, Nebraska

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
					Pct	Pct					Pct	
LcF: Labu-----	0-36 36-60	Silty clay Weathered bedrock	CH, MH	A-7	0 ---	0 ---	100 ---	95-100 ---	90-100 ---	85-100 ---	50-90 ---	20-55 ---
Sansarc-----	0-4 4-12 14-60	Silty clay Clay Weathered bedrock	CH, MH CH, MH CH, MH	A-7 A-7 A-7	0 0 0	0 0 0	100 95-100 100	95-100 95-100 95-100	90-100 95-100 90-100	75-100 85-100 85-100	60-90 60-90 50-90	25-55 25-55 20-55
Lo: Loup-----	0-11 11-60	Fine sandy loam Fine sand	SC-SM, SM SM, SP-SM	A-2, A-4 A-2, A-3	0 0	0 0	100 95-100	100 95-100	70-95 65-100	20-50 5-20	15-25 10-20	NP-6 NP-5
Lp: Loup-----	0-11 11-60	Fine sandy loam Fine sand	SC-SM, SM SM, SP-SM	A-2, A-4 A-2, A-3	0 0	0 0	100 100	100 100	70-95 65-100	20-50 5-20	15-25 10-20	NP-6 NP-5
MaB: Holt Variant---	0-12 12-48 48-60	Loamy fine sand Fine sandy loam Weathered bedrock	SC-SM, SM SM	A-2, A-4 A-2, A-4	0 0 ---	0 0 ---	100 90-100 ---	95-100 90-100 ---	65-85 70-100 ---	25-40 25-45 ---	15-25 20-35 ---	NP-5 NP-10 ---
MaC: Holt Variant---	0-12 12-48 48-60	Loamy fine sand Fine sandy loam Weathered bedrock	SC-SM, SM SM	A-2, A-4 A-2, A-4	0 0 ---	0 0 ---	100 90-100 ---	95-100 90-100 ---	65-85 70-100 ---	25-40 25-45 ---	15-25 20-35 ---	NP-5 NP-10 ---
MfC: Holt Variant---	0-10 10-48 48-60	Fine sandy loam Fine sandy loam Weathered bedrock	SC-SM, SM SM	A-4 A-2, A-4	0 0 ---	0 0 ---	100 90-100 ---	95-100 90-100 ---	90-100 70-100 ---	35-50 25-45 ---	15-30 20-35 ---	NP-7 NP-10 ---
MkG: Mariaville----	0-4 4-16 16-60	Silt loam Silt loam Weathered bedrock	CL, CL-ML CL, CL-ML	A-4, A-6 A-4, A-6	0 0 ---	0 0 ---	95-100 95-100 ---	95-100 95-100 ---	85-100 85-100 ---	50-95 50-95 ---	20-35 20-45 ---	5-15 5-25 ---
Keota-----	0-5 5-36 36-60	Silt loam Silt loam Unweathered bedrock	ML ML	A-4 A-4	0 0 ---	0 0 ---	95-100 95-100 ---	95-100 95-100 ---	85-95 90-95 ---	60-80 85-95 ---	25-35 25-40 ---	NP-10 NP-10 ---
Mm: Marlake-----	0-8 8-36 36-60	Loamy fine sand Fine sand Fine sand	SM SM, SP-SM SM, SP-SM	A-2, A-4 A-2, A-3, A-4 A-2, A-3	0 0 0	0 0 0	100 100 100	100 100 100	50-85 50-85 50-80	15-50 5-50 5-35	---	NP NP NP
MnF: Meadin-----	0-7 7-11 11-60	Gravelly sandy loam Gravelly loamy sand Gravelly sand	GC, GC-GM, SC, SC-SM GM, GP-GM, SM, SP-SM GP, GP-GM, SP, SP-SM	A-1, A-2, A-4 A-2, A-3 A-1	0 0 0	0 0 0	65-85 50-90 40-80	65-75 50-85 30-70	40-60 50-65 15-50	20-40 5-35 1-10	20-30 15-30 15-20	4-10 NP-10 NP-4
Mu: Munjor-----	0-6 6-36 36-60	Fine sandy loam Stratified fine sandy loam to loam Loamy fine sand	CL-ML, ML, SC-SM, SM CL, ML, SC, SM SM, SP-SM	A-4 A-4, A-6 A-2-4, A-3	0 0 0	0 0 0	95-100 95-100 95-100	90-100 95-100 95-100	65-95 85-100 55-100	40-65 35-65 5-30	15-30 15-28 ---	NP-10 NP-19 NP
OaB: O'Neill-----	0-7 7-30 30-60	Loamy fine sand Sandy loam Sand	SM SC, SC-SM SP, SP-SM	A-1, A-2 A-2, A-4 A-1, A-2, A-3	0 0 0	0 0 0	95-100 95-100 70-100	95-100 95-100 50-90	40-100 60-75 25-60	15-35 30-50 0-5	15-20 15-30 10-20	NP-4 NP-10 NP-5
Oe: O'Neill-----	0-6 6-24 24-60	Fine sandy loam Sandy loam Gravelly sand	ML, SC-SM, SM, CL SC, SC-SM SP, SP-SM	A-4 A-2, A-4 A-1, A-2, A-3	0 0 0	0 0 0	95-100 95-100 70-100	95-100 95-100 50-90	70-85 60-75 25-60	35-55 30-50 0-5	15-25 15-30 10-20	NP-10 NP-10 NP-5
OeC: O'Neill-----	0-6 6-24 24-60	Fine sandy loam Fine sandy loam Gravelly sand	CL, ML, SC- SM, SM SC, SC-SM SP, SP-SM	A-4 A-2, A-4 A-1, A-2, A-3	0 0 0	0 0 0	95-100 95-100 70-100	95-100 95-100 50-90	70-85 60-75 25-60	35-55 30-50 0-5	15-25 15-30 10-20	NP-10 NP-10 NP-5
OeD: O'Neill-----	0-6 6-24 24-60	Fine sandy loam Sandy loam Gravelly sand	CL, ML, SC- SM, SM SC, SC-SM SP, SP-SM	A-4 A-2, A-4 A-1, A-2, A-3	0 0 0	0 0 0	95-100 95-100 70-100	95-100 95-100 50-90	70-85 60-75 25-60	35-55 30-50 0-5	15-25 15-30 10-20	NP-10 NP-10 NP-5
OhB: O'Neill-----	0-7 7-26 26-60 0-7	Fine sandy loam Sandy loam Coarse sand Fine sandy loam	CL, ML, SC- SM, SM SC, SC-SM SP, SP-SM CL-ML, ML, SC-SM, SM	A-4 A-2, A-4 A-1, A-2, A-3 A-2, A-4	0 0 0 0	0 0 0 0	95-100 95-100 70-100 85-100	95-100 95-100 50-90 75-95	70-85 60-75 25-60 45-80	35-55 30-50 0-5 25-55	15-25 15-30 10-20 15-20	NP-10 NP-5 NP-5 NP
Meadin-----	7-12 12-60	Sandy loam Very gravelly coarse sand	GM, GP-GM, SM, SP-SM GP, GP-GM, SP, SP-SM	A-2, A-3 A-1	0 0	0 0	50-90 40-80	50-90 30-70	50-65 15-50	5-35 1-10	---	NP NP

ENGINEERING INDEX PROPERTIES--Continued
Keya Paha County, Nebraska

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
	In				Pct	Pct					Pct	
OkD: O'Neill-----	0-6	Sandy loam	CL, ML, SC- SM, SM	A-4	0	0	95-100	95-100	70-85	35-55	15-25	NP-10
Valentine-----	6-21	Sandy loam	SC, SC-SM	A-2, A-4	0	0	95-100	95-100	60-75	30-50	15-30	NP-10
	21-60	Coarse sand	SP, SP-SM	A-1, A-2, A-3	0	0	70-100	50-90	25-60	0-5	10-20	NP-5
	0-5	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	70-100	2-25	15-20	NP-5
	5-13	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	90-100	2-35	15-20	NP-5
On: Onita-----	13-60	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	70-100	2-25	15-20	NP-5
Or: Ord-----	0-16	Silt loam	CL, ML	A-4, A-6, A- 7-6	0	0	100	95-100	90-100	70-100	30-45	5-20
	16-36	Silty clay loam	CH, CL, MH, ML	A-7	0	0	100	95-100	90-100	75-100	40-60	10-30
	36-60	Silt loam	CH, CL	A-6, A-7	0	0-5	95-100	95-100	85-100	65-100	30-55	10-30
Loup-----	0-24	Fine sandy loam	ML, SM	A-2, A-4	0	0	95-100	95-100	70-98	30-90	20-35	NP-10
	24-36	Fine sandy loam	ML, SM	A-2, A-4	0	0	95-100	95-100	70-100	30-85	20-35	NP-10
	36-60	Fine sand	SC-SM, SM, SP-SM	A-2, A-3	0	0	95-100	95-100	50-100	5-30	15-20	NP-5
Pf: Paka-----	0-14	Fine sandy loam	SC-SM, SM	A-2, A-4	0	0	100	100	70-95	20-50	15-25	NP-6
	14-60	Fine sand	SM, SP-SM	A-2, A-3	0	0	95-100	95-100	65-100	5-20	10-20	NP-5
Ph: Paka-----	0-24	Fine sandy loam	SC-SM, SM	A-4	0	0	100	100	70-90	40-70	15-35	NP-10
	24-40	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	80-95	30-50	10-25
	40-60	Weathered bedrock			---	---	---	---	---	---	---	---
	0-14	Loam	CL	A-4, A-6	0	0	100	100	95-100	60-90	20-40	5-20
PhB: Paka-----	14-25	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	80-95	30-50	10-25
	25-41	Silt loam	CL	A-4, A-6, A-7	0	0	100	100	95-100	75-95	15-50	5-25
	41-60	Weathered bedrock			---	---	---	---	---	---	---	---
	0-14	Loam	CL	A-4, A-6	0	0	100	100	95-100	60-90	20-40	5-20
Perched Wt----- PmC: Paka-----	14-25	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	80-95	30-50	10-25
	25-41	Silt loam	CL	A-4, A-6, A-7	0	0	100	100	95-100	75-95	15-50	5-25
	41-60	Weathered bedrock			---	---	---	---	---	---	---	---
	0-4	Loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	85-100	50-95	20-35	5-15
Mariaville----- PmF: Paka-----	4-16	Silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	85-100	50-95	20-45	5-25
	16-60	Weathered bedrock			---	---	---	---	---	---	---	---
	0-14	Loam	CL	A-4, A-6	0	0	100	100	95-100	60-90	20-40	5-20
	14-25	Silty clay loam	CL	A-6, A-7	0	0	100	100	95-100	80-95	30-50	10-25
Mariaville-----	25-41	Silt loam	CL	A-4, A-6, A-7	0	0	100	100	95-100	75-95	15-50	5-25
	41-60	Weathered bedrock			---	---	---	---	---	---	---	---
	0-4	Loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	85-100	50-95	20-35	5-15
	4-16	Silt loam	CL, CL-ML	A-4, A-6	0	0	95-100	95-100	85-100	50-95	20-45	5-25
RaB: Ree-----	16-60	Weathered bedrock			---	---	---	---	---	---	---	---
	0-13	Loam	CL, CL-ML, ML	A-4, A-6, A-7	0	0	95-100	90-100	80-100	70-95	24-45	3-20
	13-54	Clay loam	CL	A-6, A-7	0	0	95-100	90-100	70-100	65-85	30-45	10-20
	54-60	Loamy sand	CL, CL-ML, SC, SC-SM	A-4, A-6, A-7	0	0	95-100	85-100	70-100	35-85	25-45	5-22
Rb: Ree-----	0-14	Loam	CL, CL-ML	A-4, A-6	0	0	100	100	85-95	60-70	25-35	5-15
	14-25	Loam	CL, CL-ML	A-4, A-6	0	0	100	100	85-95	60-70	25-35	5-15
	25-40	Sandy clay loam	CL, SC	A-6	0	0	100	100	80-90	35-55	30-40	10-20
	40-54	Clay	CH, MH	A-7	0	0	100	95-100	90-100	85-95	55-85	20-50
	54-60	Weathered bedrock			---	---	---	---	---	---	---	---
ReC: Reliance-----	0-11	Silt loam	CL, CL-ML, ML	A-4, A-6	0	0	100	100	95-100	70-100	20-40	3-15
	11-37	Silty clay loam	CH, CL	A-6, A-7	0	0	100	100	95-100	85-100	35-60	15-30
	37-48	Silt loam	CH, CL	A-6, A-7	0	0	100	100	90-100	70-100	30-55	10-30
	48-60	Gravelly sand	SP, SP-SM	A-1, A-2, A-3	0	0	70-100	50-90	25-60	0-5	10-20	NP-5
RoD: Ronson-----	0-13	Fine sandy loam	SC-SM, SM	A-2, A-4	0	0	100	95-100	60-95	25-45	15-30	NP-7
	13-25	Fine sandy loam	SC, SC-SM, SM	A-2, A-4	0	0	100	100	60-90	25-45	15-30	NP-10
	25-60	Weathered bedrock			---	---	---	---	---	---	---	---
Anselmo-----	0-6	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	100	100	60-100	30-65	15-25	NP-7
	6-22	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	70-95	35-65	15-25	NP-7
	22-60	Fine sandv loam	SC-SM, SM	A-4	0	0	100	100	70-85	40-50	15-25	NP-7

ENGINEERING INDEX PROPERTIES--Continued
Keya Paha County, Nebraska

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
					Pct	Pct					Pct	
RoF: Ronson-----	0-13	Fine sandy loam	SC-SM, SM	A-2, A-4	0	0	100	95-100	60-95	25-45	15-30	NP-7
	13-25	Fine sandy loam	SC, SC-SM, SM	A-2, A-4	0	0	100	100	60-90	25-45	15-30	NP-10
	25-60	Weathered bedrock			---	---	---	---	---	---	---	---
Anselmo-----	0-6	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	100	100	60-100	30-65	15-25	NP-7
	6-22	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	70-95	35-65	15-25	NP-7
	22-60	Fine sandy loam	SC-SM, SM	A-4	0	0	100	100	70-85	40-50	15-25	NP-7
RtB: Ronson-----	0-13	Fine sandy loam	SC-SM, SM	A-2, A-4	0	0	100	95-100	60-95	25-45	15-30	NP-7
	13-25	Fine sandy loam	SC, SC-SM, SM	A-2, A-4	0	0	100	100	60-90	25-45	15-30	NP-10
	25-60	Weathered bedrock			---	---	---	---	---	---	---	---
Longpine-----	0-7	Fine sandy loam	ML, SM	A-4	0	0	95-100	75-100	75-100	40-65	15-25	NP-7
	7-17	Gravelly fine sandy loam	SM	A-1, A-2	0	0-5	55-100	50-75	40-60	10-35	15-25	NP-5
	17-60	Unweathered bedrock			---	---	---	---	---	---	---	---
SaG: Sansarc-----	0-4	Silty clay	CH, MH	A-7	0	0	100	95-100	90-100	75-100	60-90	25-55
	4-12	Clay	CH, MH	A-7	0	0	95-100	95-100	95-100	85-100	60-90	25-55
	14-60	Weathered bedrock	CH, MH	A-7	0	0	100	95-100	90-100	85-100	50-90	20-55
ScF: Schamber-----	0-4	Gravelly sandy loam	GM, GW-GM, SM, SW-SM	A-1, A-2	0-2	0-5	55-90	50-75	40-60	10-35	0-25	NP-5
	4-60	Very gravelly sand	GW, GW-GM, SW, SW-SM	A-1	0-5	0-15	30-80	25-50	5-20	0-10	0-25	NP-5
SmF: Simeon-----	0-12	Loamy sand	SM, SP-SM	A-2, A-3	0	0	95-100	90-100	51-95	5-35	10-20	NP-5
	12-60	Loamy fine sand	SP, SP-SM, SM	A-1, A-2, A-3	0	0	90-100	80-100	35-95	0-30	10-20	NP-5
Holt Variant----	0-11	Loamy fine sand	SC-SM, SM	A-2, A-4	0	0	100	95-100	65-85	25-40	15-25	NP-5
	11-26	Fine sandy loam	SM	A-2, A-4	0	0	90-100	90-100	70-100	25-45	20-35	NP-10
	26-60	Weathered bedrock			---	---	---	---	---	---	---	---
Ronson-----	0-13	Loamy fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	85-100	2-35	15-20	NP-3
	13-25	Fine sandy loam	SC, SC-SM, SM	A-2, A-4	0	0	100	100	60-90	25-45	15-30	NP-10
	25-60	Weathered bedrock			---	---	---	---	---	---	---	---
SvF2: Simeon-----	0-8	Fine sand	SM, SP-SM	A-2, A-3	0	0	95-100	90-100	51-95	5-20	10-20	NP-5
	8-60	Sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	90-100	80-100	35-95	0-30	10-20	NP-5
Valentine-----	0-7	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	70-100	2-25	15-20	NP-5
	7-60	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	70-100	2-25	15-20	NP-5
SwB: Simeon-----	0-18	Loamy sand	SM, SP-SM	A-2, A-3	0	0	95-100	90-100	51-95	5-35	10-20	NP-5
	18-60	Sand	SM, SP, SP-SM	A-1, A-2, A-3	0	0	90-100	80-100	35-95	0-30	10-20	NP-5
Valentine-----	0-6	Loamy sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	95-100	2-35	15-20	NP-5
	6-60	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	70-100	2-25	15-20	NP-5
TaF: Longpine-----	0-5	Loamy fine sand	SM	A-2	0	0	95-100	75-100	65-95	15-30	10-20	NP-5
	5-13	Gravelly fine sandy loam	SM	A-1, A-2	0	0-5	55-100	50-75	40-60	10-35	15-25	NP-5
	13-60	Unweathered bedrock			---	---	---	---	---	---	---	---
TdE: Longpine-----	0-4	Fine sandy loam	ML, SM	A-4	0	0	95-100	75-100	75-100	40-65	15-25	NP-7
	4-11	Gravelly fine sandy loam	SM	A-1, A-2	0	0-5	55-100	50-75	40-60	10-35	15-25	NP-5
	11-60	Unweathered bedrock			---	---	---	---	---	---	---	---
Duda-----	0-6	Loamy fine sand	SC-SM, SM	A-2	0	0	100	100	50-75	15-40	15-25	NP-5
	6-39	Fine sand	SC-SM, SM	A-1, A-2	0	0	100	100	45-75	15-35	15-25	NP-5
	39-60	Weathered bedrock			---	---	---	---	---	---	---	---
Wt At 0-1 Foot-	---	---	---	---	---	---	---	---	---	---	---	---
TrG: Longpine-----	0-4	Loamy fine sand	SM	A-2	0	0	95-100	75-100	65-95	15-30	10-20	NP-5
	4-18	Fine sand	SM	A-1, A-2	0	0-5	55-100	50-75	40-60	10-35	15-25	NP-5
	18-60	Unweathered bedrock			---	---	---	---	---	---	---	---
Ronson-----	0-9	Fine sandy loam	SC-SM, SM	A-2, A-4	0	0	100	95-100	60-95	25-45	15-30	NP-7
	9-35	Fine sandy loam	SC, SC-SM, SM	A-2, A-4	0	0	100	100	60-90	25-45	15-30	NP-10
	35-60	Weathered bedrock			---	---	---	---	---	---	---	---
Duda-----	0-14	Sandy loam	SM	A-2, A-4	0	0	100	100	60-70	30-40	20-30	NP-7
	14-36	Fine sand	SC-SM, SM	A-1, A-2	0	0	100	100	45-75	15-35	15-25	NP-5
	36-60	Weathered bedrock			---	---	---	---	---	---	---	---

ENGINEERING INDEX PROPERTIES--Continued
Keya Paha County, Nebraska

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
					Pct	Pct						
	In											
Tu: Hennings-----	0-18	Fine sandy loam	CL, ML, SC, SM	A-4, A-6	0	0	100	100	80-100	40-75	20-35	NP-15
	18-24	Sandy clay loam	CL, CL-ML, SC, SC-SM	A-4, A-6	0	0	100	100	80-100	45-80	20-40	5-25
	24-27	Fine sandy loam	CL, ML, SC, SM	A-4, A-6	0	0	100	100	80-95	45-80	20-35	NP-15
	27-48	Loamy fine sand	SC-SM, SM	A-2, A-4	0	0	95-100	90-100	65-95	20-65	0-30	NP-10
	48-60	Weathered bedrock			---	---	---	---	---	---	---	---
VaF: Valentine-----	0-7	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	70-100	2-25	15-20	NP-5
	7-60	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	70-100	2-25	15-20	NP-5
VaG: Valentine-----	0-4	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	70-100	2-25	15-20	NP-5
	4-60	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	70-100	2-25	15-20	NP-5
VbD: Valentine-----	0-5	Loamy fine sand	SP, SP-SM, SM	A-2, A-3	0	0	100	100	95-100	2-35	15-20	NP-5
	5-60	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	70-100	2-25	15-20	NP-5
VcF: Valentine-----	0-9	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	70-100	2-25	15-20	NP-5
	9-60	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	70-100	2-25	15-20	NP-5
Longpine-----	0-8	Fine sandy loam	ML, SM	A-4	0	0	95-100	75-100	75-100	40-65	15-25	NP-7
	8-13	Gravelly fine sandy loam	SM	A-1, A-2	0	0-5	55-100	50-75	40-60	10-35	15-25	NP-5
	13-60	Unweathered bedrock			---	---	---	---	---	---	---	---
VdC: Valentine-----	0-5	Loamy fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	95-100	2-35	15-20	NP-5
	5-60	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	70-100	2-25	15-20	NP-5
Valentine-----	0-5	Loamy fine sand	SM, SP-SM	A-2, A-3	0	0	100	100	95-100	5-35	15-20	NP-5
	5-40	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	90-100	2-25	15-20	NP-5
Wewela-----	40-60	Channery clay	CH	A-7	0	0	100	95-100	90-100	70-90	50-70	30-45
	0-7	Loamy fine sand	SC-SM, SM	A-2	0	0	100	100	50-75	20-35	15-25	NP-5
	7-22	Clay loam	CL, SC	A-6, A-7	0	0	100	100	60-100	35-55	30-45	10-20
	22-26	Clay	CH, MH	A-7	0	0	100	95-100	90-100	85-100	55-85	20-50
	26-60	Weathered bedrock			---	---	---	---	---	---	---	---
VdF: Valentine-----	0-8	Loamy fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	95-100	2-35	15-20	NP-5
	17-60	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	70-100	2-25	15-20	NP-5
Valentine-----	0-9	Loamy fine sand	SM, SP-SM	A-2, A-3	0	0	100	100	95-100	5-35	15-20	NP-5
	9-40	Fine sand	SM, SP, SP-SM	A-2, A-3	0	0	100	100	90-100	2-25	15-20	NP-5
Wewela-----	40-60	Channery clay	CH	A-7	0	0	100	95-100	90-100	70-90	50-70	30-45
	0-18	Loamy fine sand	SC-SM, SM	A-2	0	0	100	100	50-75	20-35	15-25	NP-5
	18-23	Sandy clay loam	CL, SC	A-6, A-7	0	0	100	100	60-100	35-55	30-45	10-20
	23-40	Clay	CH, MH	A-7	0	0	100	95-100	90-100	85-100	55-85	20-50
	40-60	Weathered bedrock			---	---	---	---	---	---	---	---
Ve: Verdel-----	0-18	Silty clay loam	CH, CL	A-6, A-7	0	0	100	95-100	90-100	85-100	35-55	20-30
	18-60	Silty clay	CH	A-7	0	0	100	95-100	95-100	85-100	50-70	27-45
VeB: Verdel-----	0-18	Silty clay loam	CH, CL	A-6, A-7	0	0	100	95-100	90-100	85-100	35-55	20-30
	18-60	Silty clay	CH	A-7	0	0	100	95-100	95-100	85-100	50-70	27-45
VeC: Verdel-----	0-18	Silty clay loam	CH, CL	A-6, A-7	0	0	100	95-100	90-100	85-100	35-55	20-30
	18-60	Silty clay	CH	A-7	0	0	100	95-100	95-100	85-100	50-70	27-45
Vo: Vetal-----	0-36	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	100	95-100	60-100	30-55	20-30	NP-10
	36-50	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	100	95-100	60-100	30-65	20-30	NP-10
	50-60	Loamy fine sand	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	100	90-100	60-100	30-65	20-30	NP-10
Vt: Vetal-----	0-34	Loam	CL, CL-ML, ML	A-4, A-6	0	0	100	95-100	90-100	50-65	20-35	NP-12
	34-54	Loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	100	95-100	60-100	30-65	20-30	NP-10
	54-60	Loamy fine sand	ML, SC-SM, SM, CL-ML	A-2, A-4	0	0	100	90-100	60-100	30-65	20-30	NP-10
VtB: Vetal-----	0-34	Loam	CL, CL-ML, ML	A-4, A-6	0	0	100	95-100	90-100	50-65	20-35	NP-12
	34-54	Loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	100	95-100	60-100	30-65	20-30	NP-10
	54-60	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4, A-2	0	0	100	90-100	60-100	30-65	20-30	NP-10
VtC: Vetal-----	0-34	Loam	CL, CL-ML, ML	A-4, A-6	0	0	100	95-100	90-100	50-65	20-35	NP-12
	34-54	Loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	100	95-100	60-100	30-65	20-30	NP-10
	54-60	Very fine sandy loam	CL-ML, ML, SC-SM, SM	A-2, A-4	0	0	100	90-100	60-100	30-65	20-30	NP-10

ENGINEERING INDEX PROPERTIES--Continued
Keya Paha County, Nebraska

(Absence of an entry indicates that the data were not estimated.)

Map symbol and soil name	Depth	USDA texture	Classification		Fragments		Percentage passing sieve number--				Liquid limit	Plas- ticity index
			Unified	AASHTO	>10 inches	3-10 inches	4	10	40	200		
					Pct	Pct					Pct	
WeB: Wewela-----	In											
	0-8	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	70-85	40-55	15-30	NP-7
	8-16	Sandy clay loam	CL, SC	A-6, A-7	0	0	100	100	60-100	35-55	30-45	10-20
	16-36	Clay	CH, MH	A-7	0	0	100	95-100	90-100	85-100	55-85	20-50
	36-60	Weathered bedrock			---	---	---	---	---	---	---	---
WeC: Wewela-----												
	0-8	Fine sandy loam	CL-ML, ML, SC-SM, SM	A-4	0	0	100	100	70-85	40-55	15-30	NP-7
	8-16	Sandy clay loam	CL, SC	A-6, A-7	0	0	100	100	60-100	35-55	30-45	10-20
	16-36	Clay	CH, MH	A-7	0	0	100	95-100	90-100	85-100	55-85	20-50
	36-60	Weathered bedrock			---	---	---	---	---	---	---	---
zwa:												
Water-----	---	---	---	---	---	---	---	---	---	---	---	---
zwb:												
Water-----	---	---	---	---	---	---	---	---	---	---	---	---

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Physical Properties

This table shows estimates of some physical characteristics and features that affect soil behavior. These estimates are given for the layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils.

Depth to the upper and lower boundaries of each layer is indicated.

Particle size is the effective diameter of a soil particle as measured by sedimentation, sieving, or micrometric methods. Particle sizes are expressed as classes with specific effective diameter class limits. The broad classes are sand, silt, and clay, ranging from the larger to the smaller.

Sand as a soil separate consists of mineral soil particles that are 0.05 millimeter to 2 millimeters in diameter. In this table, the estimated sand content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Silt as a soil separate consists of mineral soil particles that are 0.002 to 0.05 millimeter in diameter. In this table, the estimated silt content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

Clay as a soil separate consists of mineral soil particles that are less than 0.002 millimeter in diameter. In this table, the estimated clay content of each soil layer is given as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of sand, silt, and clay affects the physical behavior of a soil. Particle size is important for engineering and agronomic interpretations, for determination of soil hydrologic qualities, and for soil classification.

The amount and kind of clay affect the fertility and physical condition of the soil and the ability of the soil to adsorb cations and to retain moisture. They influence shrink-swell potential, permeability, plasticity, the ease of soil dispersion, and other soil properties. The amount and kind of clay in a soil also affect tillage and earthmoving operations.

Moist bulk density is the weight of soil (ovendry) per unit volume. Volume is measured when the soil is at field moisture capacity, that is, the moisture content at 1/3- or 1/10-bar (33kPa or 10kPa) moisture tension. Weight is determined after the soil is dried at 105 degrees C. In the table, the estimated moist bulk density of each soil horizon is expressed in grams per cubic centimeter of soil material that is less than 2 millimeters in diameter. Bulk density data are used to compute shrink-swell potential, available water capacity, total pore space, and other soil properties. The moist bulk density of a soil indicates the pore space available for water and roots. Depending on soil texture, a bulk density of more than 1.4 can restrict water storage and root penetration. Moist bulk density is influenced by texture, kind of clay, content of organic matter, and soil structure.

Saturated hydraulic conductivity refers to the ability of a soil to transmit water or air. The term "permeability," as used in soil surveys, indicates saturated hydraulic conductivity (K-sat). The estimates in the table indicate the rate of water movement, in micrometers per second (um/sec), when the soil is saturated. They are based on soil characteristics observed in the field, particularly structure, porosity, and texture. Permeability is considered in the design of soil drainage systems and septic tank absorption fields.

Available water capacity refers to the quantity of water that the soil is capable of storing for use by plants. The capacity for water storage is given in inches of water per inch of soil for each soil layer. The capacity varies, depending on soil properties that affect retention of water. The most important properties are the content of organic matter, soil texture, bulk density, and soil structure. Available water capacity is an important factor in the choice of plants or crops to be grown and in the design and management of irrigation systems. Available water capacity is not an estimate of the quantity of water actually available to plants at any given time.

Linear extensibility refers to the change in length of an unconfined clod as moisture content is decreased from a moist to a dry state. It is an expression of the volume change between the water content of the clod at 1/3- or 1/10-bar tension (33kPa or 10kPa tension) and oven dryness. The volume change is reported in the table as percent change for the whole soil. Volume change is influenced by the amount and type of clay minerals in the soil.

Linear extensibility is used to determine the shrink-swell potential of soils. The shrink-swell potential is low if the soil has a linear extensibility of less than 3 percent; moderate if 3 to 6 percent; high if 6 to 9 percent; and very high if more than 9 percent. If the linear extensibility is more than 3, shrinking and swelling can cause damage to buildings, roads, and other structures and to plant roots. Special design commonly is needed.

Organic matter is the plant and animal residue in the soil at various stages of decomposition. In this table, the estimated content of organic matter is expressed as a percentage, by weight, of the soil material that is less than 2 millimeters in diameter.

The content of organic matter in a soil can be maintained by returning crop residue to the soil. Organic matter has a positive effect on available water capacity, water infiltration, soil organism activity, and tilth. It is a source of nitrogen and other nutrients for crops and soil organisms.

Erosion factors are shown in this table as the K factor (Kw and Kf) and the T factor. Erosion factor K indicates the susceptibility of a soil to sheet and rill erosion by water. Factor K is one of six factors used in the Universal Soil Loss Equation (USLE) and the Revised Universal Soil Loss Equation (RUSLE) to predict the average annual rate of soil loss by sheet and rill erosion in tons per acre per year. The estimates are based primarily on percentage of silt, sand, and organic matter and on soil structure and permeability. Values of K range from 0.02 to 0.69. Other factors being equal, the higher the value, the more susceptible the soil is to sheet and rill erosion by water.

Erosion factor Kw indicates the erodibility of the whole soil. The estimates are modified by the presence of rock fragments.

Erosion factor Kf indicates the erodibility of the fine-earth fraction, or the material less than 2 millimeters in size.

Erosion factor T is an estimate of the maximum average annual rate of soil erosion by wind or water that can occur without affecting crop productivity over a sustained period. The rate is in tons per acre per year.

Wind erodibility groups are made up of soils that have similar properties affecting their susceptibility to wind erosion in cultivated areas. The soils assigned to group 1 are the most susceptible to wind erosion, and those assigned to group 8 are the least susceptible. The groups are as follows:

1. Coarse sands, sands, fine sands, and very fine sands.

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(Single entries under "Sand and Silt" are a representative percentage are calculated using an algorithm. Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer)

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										K	Kf	T		
	In	Pct	Pct	Pct	g/cc	in/hr	In/in	Pct	Pct					

2. Loamy coarse sands, loamy sands, loamy fine sands, loamy very fine sands, ash material, and sapric soil material.

3. Coarse sandy loams, sandy loams, fine sandy loams, and very fine sandy loams.

4L. Calcareous loams, silt loams, clay loams, and silty clay loams.

4. Clays, silty clays, noncalcareous clay loams, and silty clay loams that are more than 35 percent clay.

5. Noncalcareous loams and silt loams that are less than 20 percent clay and sandy clay loams, sandy clays, and hemic soil material.

6. Noncalcareous loams and silt loams that are more than 20 percent clay and noncalcareous clay loams that are less than 35 percent clay.

7. Silts, noncalcareous silty clay loams that are less than 35 percent clay, and fibric soil material.

8. Soils that are not subject to wind erosion because of coarse fragments on the surface or because of surface wetness.

Wind erodibility index is a numerical value indicating the susceptibility of soil to wind erosion, or the tons per acre per year that can be expected to be lost to wind erosion. There is a close correlation between wind erosion and the texture of the surface layer, the size and durability of surface clods, rock fragments, organic matter, and a calcareous reaction. Soil moisture and frozen soil layers also influence wind erosion.

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Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										K	Kf	T		
Ab: Albaton Variant-----	0-27	23	29	40-55	1.55-1.65	0.01-0.06	0.11-0.13	9.0-25.0	3.0-4.0	.32	.32	4	4	86
	27-40	34	32	27-40	1.50-1.60	0.06-0.60	0.15-0.17	3.0-8.9	0.0-1.0	.32	.32			
	40-60	94	1	2-8	1.45-1.55	5.95-19.98	0.05-0.07	0.0-2.9	0.0-1.0	.15	.15			
AmB: Anselmo-----	0-17	87	2	5-10	1.50-1.70	5.95-19.98	0.10-0.12	0.0-2.9	1.0-2.0	.17	.17	5	2	134
	17-54	66	20	10-18	1.40-1.60	2.00-6.00	0.15-0.19	0.0-2.9	0.5-1.0	.20	.20			
	54-60	84	6	2-18	1.40-1.60	2.00-20.00	0.12-0.16	0.0-2.9	0.5-1.0	.17	.17			
An: Anselmo-----	0-6	66	20	10-18	1.30-1.60	2.00-5.95	0.13-0.18	0.0-2.9	1.0-2.0	.20	.20	5	3	86
	6-24	66	20	10-18	1.40-1.60	2.00-6.00	0.15-0.19	0.0-2.9	0.5-1.0	.20	.20			
	24-60	94	1	2-18	1.40-1.60	2.00-20.00	0.12-0.16	0.0-2.9	0.5-1.0	.15	.15			
AnC: Anselmo-----	0-6	66	20	10-18	1.30-1.60	1.98-5.95	0.13-0.18	0.0-2.9	1.0-2.0	.20	.20	5	3	86
	6-44	66	20	10-18	1.40-1.60	2.00-6.00	0.15-0.19	0.0-2.9	0.5-1.0	.20	.20			
	44-60	85	1	10-18	1.40-1.60	2.00-19.98	0.12-0.16	0.0-2.9	0.5-1.0	.17	.17			
Ba: Barney-----	0-7	64	26	5-15	1.50-1.70	1.98-5.95	0.10-0.18	0.0-2.9	1.0-3.0	.20	.20	5	8	0
	7-30	92	2	3-10	1.60-1.80	5.95-19.98	0.09-0.14	0.0-2.9	0.0-0.5	.15	.15			
	30-60	91	6	0-5	1.70-1.90	5.95-99.90	0.04-0.07	0.0-2.9	0.0-0.5	.10	.10			
Bo: Boel-----	0-7	67	20	8-18	1.50-1.70	2.00-6.00	0.16-0.18	0.0-2.9	1.0-2.0	.20	.20	3	3	86
	7-60	96	2	0-6	1.50-1.60	5.95-99.90	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
Bt: Brocksburg---	0-15	40	38	18-27	1.30-1.50	0.60-2.00	0.20-0.24	0.0-2.9	1.0-3.0	.28	.28	4	5	56
	15-30	34	38	20-30	1.30-1.50	2.00-2.00	0.15-0.19	0.0-5.9	1.0-2.0	.28	.28			
	30-80	96	2	0-5	1.50-1.70	5.99-99.90	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
Cb: Cass-----	0-10	40	38	18-27	1.20-1.40	0.60-2.00	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	5	56
	10-40	67	20	8-18	1.40-1.60	2.00-6.00	0.15-0.17	0.0-2.9	0.5-1.0	.20	.20			
	40-60	87	7	2-10	1.50-1.70	5.95-19.98	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
CcB: Cass-----	0-10	44	41	18-27	1.20-1.40	0.60-2.00	0.20-0.22	0.0-2.9	1.0-3.0	.28	.28	5	5	56
	10-40	67	20	8-18	1.40-1.60	2.00-6.00	0.15-0.17	0.0-2.9	0.5-1.0	.20	.20			
	40-60	87	7	2-10	1.50-1.70	5.95-19.98	0.08-0.10	0.0-2.9	0.0-0.5	.17	.17			
DdB: Duda-----	0-6	87	7	3-10	1.15-1.25	5.95-19.98	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	3	2	134
	6-25	87	7	3-10	1.45-1.60	5.95-19.98	0.08-0.10	0.0-2.9	0.0-1.0	.17	.17			
	25-60			---	---	0.20-2.00	---	---	---	---	---			
DdC: Duda-----	0-6	87	7	3-10	1.15-1.25	5.95-19.98	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	3	2	134
	6-25	87	7	3-10	1.45-1.60	5.95-19.98	0.08-0.10	0.0-2.9	0.0-1.0	.17	.17			
	25-60			---	---	0.20-2.00	---	---	---	---	---			
DuB: Dunday-----	0-15	87	7	3-10	1.40-1.60	5.95-19.98	0.10-0.12	0.0-2.9	1.0-2.0	.17	.17	5	2	134
	15-60	95	1	2-7	1.50-1.70	5.95-19.98	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
DxB: Dunday-----	0-15	87	7	3-10	1.40-1.60	5.95-19.98	0.10-0.12	0.0-2.9	1.0-2.0	.17	.17	5	2	134
	15-60	95	1	2-7	1.50-1.70	5.95-19.98	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
	6-25	87	7	3-10	1.15-1.25	5.95-19.98	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	3	2	134
	25-60	87	7	3-10	1.45-1.60	5.95-19.98	0.08-0.10	0.0-2.9	0.0-1.0	.17	.17			
				---	---	0.20-2.00	---	---	---	---	---			
Eo: Els-----	0-7	94	1	2-8	1.60-1.70	5.95-19.98	0.07-0.12	0.0-2.9	0.5-3.0	.15	.15	5	1	220
	7-13	94	1	2-8	1.50-1.60	5.95-19.98	0.05-0.08	0.0-2.9	0.0-0.5	.15	.15			
	13-60	94	1	2-8	1.50-1.60	5.95-19.98	0.04-0.07	0.0-2.9	0.0-0.5	.15	.15			
Es: Elsmere-----	0-12	87	7	3-10	1.55-1.70	5.95-19.98	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	5	2	134
	12-24	79	17	2-10	1.50-1.60	5.95-19.98	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
	24-60	97	1	2-10	1.50-1.60	5.95-19.98	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
Ho: Holt-----	0-6	63	26	8-15	1.25-1.35	1.98-5.95	0.14-0.17	0.0-2.9	1.0-3.0	.20	.20	3	3	86
	6-10	66	20	10-18	1.30-1.45	1.98-5.95	0.10-0.16	0.0-2.9	0.0-2.0	.20	.20			
	10-34	87	7	5-18	1.35-1.60	1.98-19.98	0.10-0.16	0.0-2.9	0.0-2.0	.17	.17			
HoC: Holt-----	0-6	63	26	8-15	1.25-1.35	1.98-5.95	0.14-0.17	0.0-2.9	1.0-3.0	.20	.20	3	3	86
	6-10	66	20	10-18	1.30-1.45	1.98-5.95	0.10-0.16	0.0-2.9	0.0-2.0	.20	.20			
	10-34	62	26	5-18	1.35-1.60	1.98-19.98	0.10-0.16	0.0-2.9	0.0-2.0	.20	.20			
	34-60			---	---	0.20-2.00	---	---	0.0-0.5	---	---			
HtC: Holt-----	0-6	63	26	8-15	1.25-1.35	1.98-5.95	0.14-0.17	0.0-2.9	1.0-3.0	.20	.20	3	3	86
	6-10	66	20	10-18	1.30-1.45	1.98-5.95	0.10-0.16	0.0-2.9	0.0-2.0	.20	.20			
	10-34	87	7	5-18	1.35-1.60	1.98-19.98	0.10-0.16	0.0-2.9	0.0-2.0	.17	.17			
	34-60			---	---	0.20-2.00	---	---	0.0-0.5	---	---			
Longpine----	0-9	65	27	8-12	1.30-1.50	2.00-6.00	0.16-0.18	0.0-2.9	0.5-1.0	.24	.24	2	3	86
	9-13	65	27	8-12	1.50-1.70	2.00-6.00	0.09-0.11	0.0-2.9	0.5-1.0	.10	.17			
	13-60			---	---	0.20-0.60	---	---	---	---	---			

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Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										K	Kf	T		
HtD:														
Holt-----	0-6	63	26	8-15	1.25-1.35	1.98-5.95	0.14-0.17	0.0-2.9	1.0-3.0	.20	.20	3	3	86
	6-10	66	20	10-18	1.30-1.45	1.98-5.95	0.10-0.16	0.0-2.9	0.0-2.0	.20	.20			
	10-34	62	26	5-18	1.35-1.60	1.98-19.98	0.10-0.16	0.0-2.9	0.0-2.0	.20	.20			
	34-60			---	---	0.20-2.00	---	---	0.0-0.5	---	---			
Longpine----	0-9	65	27	8-12	1.30-1.50	2.00-6.00	0.16-0.18	0.0-2.9	0.5-1.0	.24	.24	2	3	86
	9-13	65	27	8-12	1.50-1.70	2.00-6.00	0.09-0.11	0.0-2.9	0.5-1.0	.10	.17			
	13-60			---	---	0.20-0.60	---	---	---	---	---			
IfD:														
Inavale-----	0-6	96	1	1-5	1.50-1.60	5.95-19.98	0.07-0.09	0.0-2.9	0.5-1.0	.15	.15	5	1	220
	6-24	92	1	3-10	1.50-1.60	5.95-19.98	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
	24-60	92	1	3-10	1.50-1.60	5.95-19.98	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
IgB:														
Inavale-----	0-6	96	1	1-5	1.50-1.60	5.95-19.98	0.07-0.09	0.0-2.9	0.5-1.0	.15	.15	5	1	220
	6-24	92	1	3-10	1.50-1.60	5.95-19.98	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
	24-60	92	1	3-10	1.50-1.60	5.95-19.98	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
IhB:														
Inavale-----	0-5	87	7	2-10	1.50-1.60	5.95-19.98	0.10-0.12	0.0-2.9	0.5-1.0	.17	.17	5	2	134
	5-15	92	1	3-10	1.50-1.60	5.95-19.98	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
	15-60	92	2	3-10	1.50-1.60	5.95-19.98	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
IpB:														
Ipague-----	0-6	87	7	3-10	1.40-1.50	5.95-19.98	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	5	2	134
	6-60	95	1	1-8	1.50-1.60	5.95-19.98	0.04-0.10	0.0-2.9	0.0-0.5	.15	.15			
Ja:														
Jansen-----	0-6	67	20	8-18	1.30-1.40	2.00-6.00	0.13-0.18	0.0-2.9	1.0-3.0	.20	.20	4	3	86
	6-22	36	39	18-32	1.30-1.50	0.20-2.00	0.15-0.19	3.0-5.9	0.5-2.0	.37	.37			
	22-33	79	17	2-7	1.45-1.65	5.95-19.98	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
	33-60	92	7	0-3	1.50-1.70	19.98-19.98	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Jn:														
Jansen-----	0-9	41	37	18-25	1.20-1.30	0.60-2.00	0.20-0.24	0.0-2.9	2.0-4.0	.28	.28	4	5	56
	9-24	36	39	18-32	1.30-1.50	0.20-2.00	0.15-0.19	3.0-5.9	0.5-2.0	.37	.37			
	24-27	80	16	2-7	1.45-1.65	5.95-19.98	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
	27-60	97	2	0-3	1.50-1.70	19.98-19.98	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
JnC:														
Jansen-----	0-9	43	40	12-22	1.20-1.30	0.60-2.00	0.20-0.24	0.0-2.9	2.0-4.0	.28	.28	4	5	56
	9-24	36	39	18-32	1.30-1.50	0.60-2.00	0.15-0.19	3.0-5.9	0.5-2.0	.37	.37			
	24-27	79	17	2-7	1.45-1.65	5.95-19.98	0.06-0.11	0.0-2.9	0.0-0.5	.17	.17			
	27-60	97	2	0-3	1.50-1.70	19.98-19.98	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
JoB:														
Jansen-----	0-12	41	37	18-25	1.20-1.30	0.60-2.00	0.20-0.24	0.0-2.9	2.0-4.0	.28	.28	4	5	56
	12-22	36	39	18-32	1.30-1.50	0.20-2.00	0.15-0.19	3.0-5.9	0.5-2.0	.37	.37			
	22-26	79	17	2-7	1.45-1.65	5.95-19.98	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
	26-60	92	7	0-3	1.50-1.70	19.98-19.98	0.02-0.04	0.0-2.9	0.0-0.5	.05	.10			
Meadin-----	0-10	41	37	18-25	1.40-1.60	0.57-1.98	0.20-0.22	0.0-2.9	1.0-2.0	.28	.28	5	5	56
	10-16	65	23	5-18	1.50-1.60	1.98-19.98	0.09-0.11	0.0-2.9	0.5-1.0	.10	.17			
	16-60	90	6	2-5	1.50-1.70	19.98-19.98	0.02-0.05	0.0-2.9	0.0-0.5	.10	.15			
LaD:														
Labu-----	0-36	3	45	45-60	1.20-1.30	0.00-0.06	0.08-0.14	9.0-25.0	1.0-3.0	.32	.32	3	4	86
	36-60			---	---	0.06-0.20	---	---	---	---	---			
LcF:														
Labu-----	0-36	3	45	45-60	1.20-1.30	0.00-0.06	0.08-0.14	9.0-25.0	1.0-3.0	.32	.32	3	4	86
	36-60			---	---	0.06-0.20	---	---	---	---	---			
Sansarc-----	0-4	5	35	55-65	1.10-1.20	0.01-0.06	0.08-0.12	9.0-25.0	1.0-2.0	.37	.37	2	4	86
	4-12	12	28	55-65	1.10-1.20	0.01-0.06	0.06-0.12	9.0-25.0	0.1-1.0	.37	.37			
	14-60			---	---	0.06-0.20	---	---	0.0-0.5	---	---			
Lo:														
Loup-----	0-11	64	26	5-15	1.30-1.50	2.00-6.00	0.16-0.18	0.0-2.9	4.0-8.0	.20	.20	3	8	0
	11-60	95	1	2-7	1.50-1.70	5.95-19.98	0.06-0.08	0.0-2.9	0.5-1.0	.15	.15			
Lp:														
Loup-----	0-11	64	26	5-15	1.30-1.50	2.00-6.00	0.16-0.18	0.0-2.9	4.0-8.0	.20	.20	3	8	0
	11-60	95	1	2-7	1.50-1.70	5.95-19.98	0.06-0.08	0.0-2.9	0.5-1.0	.15	.15			
MaB:														
Holt Variant-	0-12	86	7	5-10	1.30-1.50	5.95-19.98	0.10-0.12	0.0-2.9	1.0-2.0	.17	.17	4	2	134
	12-48	62	26	5-18	1.35-1.60	1.98-19.98	0.10-0.16	0.0-2.9	0.0-2.0	.28	.28			
	48-60			---	---	0.20-2.00	---	---	0.0-0.5	---	---			
MaC:														
Holt Variant-	0-12	86	7	5-10	1.30-1.50	5.95-19.98	0.10-0.12	0.0-2.9	1.0-2.0	.17	.17	4	2	134
	12-48	62	26	5-18	1.35-1.60	1.98-19.98	0.10-0.16	0.0-2.9	0.0-2.0	.28	.28			
	48-60			---	---	0.20-2.00	---	---	0.0-0.5	---	---			
MfC:														
Holt Variant-	0-10	63	26	8-15	1.25-1.35	1.98-5.95	0.14-0.17	0.0-2.9	1.0-3.0	.20	.20	4	3	86
	10-48	62	26	5-18	1.35-1.60	1.98-19.98	0.10-0.16	0.0-2.9	0.0-2.0	.28	.28			
	48-60			---	---	0.20-2.00	---	---	0.0-0.5	---	---			
MkG:														
Mariaville---	0-4	27	54	12-26	1.20-1.40	0.60-2.00	0.20-0.23	0.0-2.9	1.0-3.0	.43	.43	2	4L	86
	4-16	59	20	12-30	1.10-1.30	0.20-2.00	0.17-0.22	0.0-2.9	0.5-1.0	.43	.43			
	16-60			---	---	0.06-0.20	---	---	0.5-1.0	---	---			
Keota-----	0-5	14	73	5-20	1.35-1.50	0.60-2.00	0.16-0.18	0.0-2.9	0.5-1.0	.37	.37	3	4L	86
	5-36	21	69	5-20	1.40-1.55	0.60-2.00	0.14-0.16	0.0-2.9	0.0-0.5	.43	.43			
	36-60			---	---	0.06-0.20	---	---	---	---	---			
Mm:														
Marlake-----	0-8	87	7	3-10	1.50-1.60	5.95-19.98	0.10-0.14	0.0-2.9	4.0-8.0	.17	.17	5	8	0
	8-36	93	1	3-8	1.50-1.60	5.95-19.98	0.06-0.11	0.0-2.9	0.5-1.0	.15	.15			
	36-60	96	2	0-5	1.50-1.60	5.95-19.98	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			

PHYSICAL PROPERTIES OF THE SOILS
Keya Paha County, Nebraska: Published

(Single entries under "Sand and Silt" are a representative percentage are calculated using an algorithm. Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer)

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										K	Kf	T		
MnF: Meadin-----	0-7 7-11 11-60	68 84 90	24 4 6	5-12 5-18 2-5	1.50-1.60 1.50-1.60 1.50-1.70	2.00-6.00 5.95-19.98 19.98-19.98	0.13-0.16 0.09-0.11 0.05-0.07	0.0-2.9 0.0-2.9 0.0-2.9	1.0-2.0 0.0-0.5 0.0-0.5	.15 .10 .10	.24 .17 .15	5	8	0
Mu: Munjor-----	0-6 6-36 36-60	66 67 80	20 20 17	7-20 7-18 1-5	1.30-1.40 1.30-1.40 1.40-1.50	2.00-6.00 2.00-6.00 5.95-19.98	0.13-0.18 0.13-0.18 0.06-0.09	0.0-2.9 0.0-2.9 0.0-2.9	0.5-1.0 0.0-0.5 0.0-0.5	.24 .24 .17	.24 .24 .17	4	3	86
OaB: O'Neill-----	0-7 7-30 30-60	87 67 97	7 20 2	3-10 7-18 0-3	1.40-1.60 1.60-1.80 1.50-1.70	5.95-19.98 2.00-6.00 19.98-19.98	0.09-0.11 0.10-0.15 0.02-0.04	0.0-2.9 0.0-2.9 0.0-2.9	1.0-3.0 0.5-1.0 0.0-0.5	.17 .20 .15	.17 .20 .15	4	2	134
Oe: O'Neill-----	0-6 6-24 24-60	64 67 97	26 20 2	7-12 7-18 0-3	1.60-1.80 1.60-1.80 1.50-1.70	2.00-6.00 2.00-6.00 19.98-19.98	0.10-0.15 0.10-0.15 0.02-0.04	0.0-2.9 0.0-2.9 0.0-2.9	1.0-3.0 0.5-1.0 0.0-0.5	.20 .20 .10	.20 .20 .15	4	3	86
OeC: O'Neill-----	0-6 6-24 24-60	64 67 97	26 20 2	7-12 7-18 0-3	1.60-1.80 1.60-1.80 1.50-1.70	1.98-5.95 1.98-5.95 19.98-19.98	0.10-0.15 0.10-0.15 0.02-0.04	0.0-2.9 0.0-2.9 0.0-2.9	1.0-3.0 0.5-1.0 0.0-0.5	.20 .20 .10	.20 .20 .15	4	3	86
OeD: O'Neill-----	0-6 6-24 24-60	64 67 97	26 20 2	7-12 7-18 0-3	1.60-1.80 1.60-1.80 1.50-1.70	1.98-5.95 1.98-5.95 19.98-19.98	0.10-0.15 0.10-0.15 0.02-0.04	0.0-2.9 0.0-2.9 0.0-2.9	1.0-3.0 0.5-1.0 0.0-0.5	.20 .20 .10	.20 .20 .15	4	3	86
OhB: O'Neill-----	0-7 7-26 26-60	65 68 97	27 20 2	7-12 7-18 0-3	1.60-1.80 1.60-1.80 1.50-1.70	1.98-5.95 2.00-5.95 19.98-19.98	0.10-0.15 0.10-0.15 0.02-0.04	0.0-2.9 0.0-2.9 0.0-2.9	1.0-3.0 0.5-1.0 0.0-0.5	.20 .20 .10	.20 .20 .10	4	3	86
Meadin-----	0-7 7-12 12-60	65 65 90	27 23 6	7-12 5-18 2-5	1.50-1.60 1.50-1.60 1.50-1.70	1.98-19.98 1.98-19.98 19.98-19.98	0.13-0.18 0.09-0.11 0.02-0.05	0.0-2.9 0.0-2.9 0.0-2.9	1.0-2.0 0.5-1.0 0.0-0.5	.20 .20 .05	.20 .20 .10	5	3	86
OkD: O'Neill-----	0-6 6-21 21-60	67 68 97	24 20 2	7-12 7-18 0-3	1.60-1.80 1.60-1.80 1.50-1.70	1.98-5.95 1.98-5.95 19.98-19.98	0.10-0.15 0.10-0.15 0.02-0.04	0.0-2.9 0.0-2.9 0.0-2.9	1.0-3.0 0.5-1.0 0.0-0.5	.20 .20 .10	.20 .20 .10	4	3	86
Valentine----	0-5 5-13 13-60	96 93 96	1 1 1	0-6 2-10 0-6	1.40-1.60 1.55-1.75 1.60-1.80	5.95-19.98 5.95-19.98 5.95-19.98	0.07-0.09 0.09-0.11 0.05-0.07	0.0-2.9 0.0-2.9 0.0-2.9	0.5-1.0 0.0-0.5 0.0-0.5	.15 .15 .15	.15 .15 .15	5	1	250
On: Onita-----	0-16 16-36 36-60	25 7 20	52 54 48	20-26 35-50 25-40	1.15-1.30 1.20-1.40 1.25-1.40	0.57-1.98 0.00-0.20 0.20-1.98	0.19-0.22 0.11-0.17 0.17-0.20	0.0-2.9 6.0-8.9 3.0-5.9	4.0-6.0 0.0-2.0 0.0-0.5	.28 .28 .43	.28 .28 .43	5	6	48
Or: Ord-----	0-24 24-36 36-60	62 62 91	26 26 1	8-15 8-15 3-12	1.40-1.60 1.50-1.70 1.60-1.70	2.00-6.00 2.00-6.00 5.95-19.98	0.16-0.24 0.15-0.17 0.02-0.04	0.0-2.9 0.0-2.9 0.0-2.9	1.0-2.0 0.5-1.0 0.0-0.5	.20 .20 .15	.20 .20 .15	4	3	86
Loup-----	0-14 14-60	67 95	20 1	7-15 2-7	1.30-1.50 1.50-1.70	2.00-6.00 5.95-19.98	0.16-0.18 0.06-0.08	0.0-2.9 0.0-2.9	4.0-8.0 0.5-1.0	.20 .15	.20 .15	3	8	0
Pf: Paka-----	0-24 24-40 40-60	65 7 ---	20 64 ---	10-20 24-35 ---	1.30-1.50 1.40-1.60 ---	2.00-6.00 0.20-2.00 0.06-0.20	0.13-0.18 0.18-0.20 ---	0.0-2.9 3.0-5.9 ---	1.0-3.0 1.0-2.0 ---	.20 .43 ---	.20 .43 ---	4	3	86
Ph: Paka-----	0-14 14-25 25-41 41-60	38 7 10 ---	43 64 68 ---	14-25 24-35 10-35 ---	1.20-1.40 1.40-1.60 1.20-1.40 ---	0.60-2.00 0.20-2.00 0.60-2.00 0.06-0.20	0.20-0.22 0.18-0.20 0.20-0.22 ---	3.0-5.9 3.0-5.9 3.0-5.9 ---	2.0-4.0 1.0-2.0 0.5-1.0 ---	.28 .43 .43 ---	.28 .43 .43 ---	4	5	56
PhB: Paka-----	0-14 14-25 25-41 41-60	38 7 10 ---	43 64 68 ---	14-25 24-35 10-35 ---	1.20-1.40 1.40-1.60 1.20-1.40 ---	0.60-2.00 0.20-2.00 0.60-2.00 0.06-0.20	0.20-0.22 0.18-0.20 0.20-0.22 ---	3.0-5.9 3.0-5.9 3.0-5.9 ---	2.0-4.0 1.0-2.0 0.5-1.0 ---	.28 .43 .43 ---	.28 .43 .43 ---	4	5	56
Perched Wt----	---	---	---	---	---	---	---	---	---	---	---	---	---	---
PmC: Paka-----	0-14 14-25 25-41 41-60	38 7 10 ---	43 64 68 ---	14-25 24-35 10-35 ---	1.20-1.40 1.40-1.60 1.20-1.40 ---	0.60-2.00 0.20-2.00 0.60-2.00 0.06-0.20	0.20-0.22 0.18-0.20 0.20-0.22 ---	3.0-5.9 3.0-5.9 3.0-5.9 ---	2.0-4.0 1.0-2.0 0.5-1.0 ---	.28 .43 .43 ---	.28 .43 .43 ---	4	5	56
Mariaville---	0-4 4-16 16-60	43 59 ---	38 20 ---	12-26 12-30 ---	1.20-1.40 1.10-1.30 ---	0.60-2.00 0.20-2.00 0.06-0.20	0.20-0.22 0.17-0.22 ---	0.0-2.9 0.0-2.9 ---	1.0-3.0 0.5-1.0 0.5-1.0	.37 .43 ---	.37 .43 ---	2	4L	86
PmF: Paka-----	0-14 14-25 25-41 41-60	38 7 10 ---	43 64 68 ---	14-25 24-35 10-35 ---	1.20-1.40 1.40-1.60 1.20-1.40 ---	0.60-2.00 0.20-2.00 0.60-2.00 0.06-0.20	0.20-0.22 0.18-0.20 0.20-0.22 ---	3.0-5.9 3.0-5.9 3.0-5.9 ---	2.0-4.0 1.0-2.0 0.5-1.0 ---	.28 .43 .43 ---	.28 .43 .43 ---	4	5	56
Mariaville---	0-4 4-16 16-60	43 26 ---	38 53 ---	12-26 12-30 ---	1.20-1.40 1.10-1.30 ---	0.60-2.00 0.20-2.00 0.06-0.20	0.20-0.22 0.17-0.22 ---	0.0-2.9 0.0-2.9 ---	1.0-3.0 0.5-1.0 0.5-1.0	.37 .43 ---	.37 .43 ---	2	4L	86
RaB: Ree-----	0-13 13-54 54-60	39 35 95	37 34 ---	22-26 27-35 5-18	1.15-1.30 1.20-1.35 1.30-1.50	0.57-1.98 0.20-1.98 1.98-19.98	0.18-0.22 0.17-0.22 0.09-0.20	0.0-2.9 3.0-5.9 0.0-2.9	2.0-4.0 0.5-2.0 0.0-0.5	.28 .28 .17	.28 .28 .17	5	6	48

PHYSICAL PROPERTIES OF THE SOILS
Keya Paha County, Nebraska: Published

(Single entries under "Sand and Silt" are a representative percentage are calculated using an algorithm. Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer)

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										K	Kf	T		
Rb: Ree-----	0-14	42	37	15-27	1.15-1.30	0.57-1.98	0.18-0.20	0.0-2.9	2.0-4.0	.28	.28	4	6	48
	14-25	38	36	20-35	1.20-1.40	0.20-1.98	0.18-0.20	0.0-2.9	0.5-2.0	.28	.28			
	25-40	55	17	20-35	1.40-1.60	0.20-1.98	0.16-0.18	3.0-5.9	0.0-0.5	.28	.28			
	40-54	17	28	45-65	1.20-1.35	0.00-0.06	0.08-0.12	6.0-8.9	0.0-0.5	.28	.28			
	54-60			---	---	---	---	---	---	---	---			
ReC: Reliance----	0-11	24	52	22-26	1.10-1.25	0.57-1.98	0.19-0.22	0.0-2.9	2.0-4.0	.32	.32	4	6	48
	11-37	7	53	35-45	1.20-1.40	0.00-0.20	0.11-0.19	6.0-8.9	0.5-2.0	.32	.32			
	37-48	24	50	25-40	1.20-1.35	0.06-1.98	0.14-0.20	3.0-5.9	0.0-1.0	.43	.43			
	48-60	97	2	0-3	1.50-1.70	19.98-19.98	0.02-0.04	0.0-2.9	0.0-0.5	.10	.15			
RoD: Ronson-----	0-13	66	20	10-18	1.30-1.40	2.00-6.00	0.11-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
	13-25	66	20	10-18	1.35-1.45	2.00-6.00	0.09-0.15	0.0-2.9	0.5-1.0	.24	.24			
	25-60			---	---	0.20-0.60	---	---	0.0-0.5	---	---			
Anselmo-----	0-6	66	20	10-18	1.30-1.60	1.98-5.95	0.13-0.18	0.0-2.9	1.0-2.0	.20	.20	5	3	86
	6-22	66	20	10-18	1.40-1.60	1.98-5.95	0.15-0.19	0.0-2.9	0.5-1.0	.20	.20			
	22-60	66	20	10-18	1.40-1.60	1.98-5.95	0.12-0.16	0.0-2.9	0.5-1.0	.24	.24			
RoF: Ronson-----	0-13	66	20	10-18	1.30-1.40	2.00-6.00	0.11-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
	13-25	66	20	10-18	1.35-1.45	2.00-6.00	0.09-0.15	0.0-2.9	0.5-1.0	.24	.24			
	25-60			---	---	0.20-0.60	---	---	0.0-0.5	---	---			
Anselmo-----	0-6	66	20	10-18	1.30-1.60	2.00-5.95	0.13-0.18	0.0-2.9	1.0-2.0	.20	.20	5	3	86
	6-22	66	20	10-18	1.40-1.60	2.00-6.00	0.15-0.19	0.0-2.9	0.5-1.0	.20	.20			
	22-60	66	20	10-18	1.40-1.60	2.00-6.00	0.12-0.16	0.0-2.9	0.5-1.0	.24	.24			
RtB: Ronson-----	0-13	66	20	10-18	1.30-1.40	2.00-6.00	0.11-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
	13-25	66	20	10-18	1.35-1.45	2.00-6.00	0.09-0.15	0.0-2.9	0.5-1.0	.24	.24			
	25-60			---	---	0.20-0.60	---	---	0.0-0.5	---	---			
Longpine-----	0-7	65	27	7-12	1.30-1.50	2.00-6.00	0.16-0.18	0.0-2.9	0.5-1.0	.24	.24	2	3	86
	7-17	65	27	7-12	1.50-1.70	2.00-6.00	0.09-0.11	0.0-2.9	0.5-1.0	.15	.28			
	17-60			---	---	0.20-0.60	---	---	---	---	---			
SaG: Sansarc-----	0-4	5	35	55-65	1.10-1.20	0.01-0.06	0.08-0.12	9.0-25.0	1.0-2.0	.37	.37	2	4	86
	4-12	12	28	55-65	1.10-1.20	0.01-0.06	0.06-0.12	9.0-25.0	0.1-1.0	.37	.37			
	14-60			---	---	0.06-0.20	---	---	0.0-0.5	---	---			
ScF: Schamber-----	0-4	64	14	18-25	1.40-1.60	1.98-5.95	0.03-0.06	0.0-2.9	0.5-2.0	.20	.28	2	8	0
	4-60	95	1	2-10	1.40-1.65	5.95-19.98	0.03-0.06	0.0-2.9	0.0-1.0	.05	.15			
SmF: Simeon-----	0-12	82	9	5-10	1.30-1.50	5.95-19.98	0.08-0.14	0.0-2.9	0.5-1.0	.17	.17	5	2	134
	12-60	87	7	2-10	1.50-1.70	5.95-19.98	0.05-0.10	0.0-2.9	0.0-0.5	.17	.17			
Holt Variant----	0-11	86	7	5-10	1.30-1.50	5.95-19.98	0.10-0.12	0.0-2.9	1.0-2.0	.17	.17	4	2	134
	11-26	62	26	7-18	1.35-1.60	1.98-5.95	0.10-0.16	0.0-2.9	0.0-2.0	.28	.28			
	26-60			---	---	0.20-2.00	---	---	0.0-0.5	---	---			
Ronson-----	0-13	79	16	2-7	1.35-1.55	5.95-19.98	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	3	2	134
	13-25	66	20	10-18	1.35-1.45	2.00-6.00	0.09-0.15	0.0-2.9	0.5-1.0	.24	.24			
	25-60			---	---	0.20-6.00	---	---	0.0-0.5	---	---			
SvF2: Simeon-----	0-8	92	1	3-10	1.30-1.50	5.95-19.98	0.06-0.12	0.0-2.9	0.5-1.0	.15	.15	5	1	250
	8-60	92	2	2-10	1.50-1.70	5.95-19.98	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
Valentine-----	0-7	96	1	0-6	1.40-1.60	5.95-19.98	0.07-0.09	0.0-2.9	0.5-1.0	.15	.15	5	1	250
	7-60	96	1	0-6	1.60-1.80	5.95-19.98	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
SwB: Simeon-----	0-18	82	9	5-12	1.30-1.50	5.95-19.98	0.08-0.14	0.0-2.9	0.5-1.0	.17	.17	5	2	134
	18-60	92	2	2-10	1.50-1.70	5.95-19.98	0.05-0.10	0.0-2.9	0.0-0.5	.15	.15			
Valentine-----	0-6	85	9	2-10	1.35-1.55	5.95-19.98	0.10-0.12	0.0-2.9	0.5-1.0	.17	.17	5	2	134
	6-60	96	1	0-6	1.60-1.80	5.95-19.98	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
TaF: Longpine-----	0-5	79	16	2-8	1.35-1.55	5.95-19.98	0.10-0.12	0.0-2.9	0.5-1.0	.17	.17	2	2	134
	5-13	65	27	7-12	1.50-1.70	2.00-6.00	0.09-0.11	0.0-2.9	0.5-1.0	.15	.28			
	13-60			---	---	0.20-0.60	---	---	---	---	---			
TdE: Longpine-----	0-4	65	27	7-12	1.30-1.50	2.00-6.00	0.16-0.18	0.0-2.9	0.5-1.0	.24	.24	2	3	86
	4-11	65	27	7-12	1.50-1.70	2.00-6.00	0.09-0.11	0.0-2.9	0.5-1.0	.28	.15			
	11-60			---	---	0.20-0.60	---	---	---	---	---			
Duda-----	0-6	87	7	3-10	1.15-1.25	5.95-19.98	0.10-0.12	0.0-2.9	0.5-2.0	.17	.17	3	2	134
	6-39	87	7	3-10	1.45-1.60	5.95-19.98	0.08-0.10	0.0-2.9	0.0-1.0	.15	.15			
	39-60			---	---	0.20-0.60	---	---	---	---	---			
Wt At 0-1 Foot-----	---			---	---	---	---	---	---	---	---	-	---	---
TrG: Longpine-----	0-4	79	16	2-8	1.35-1.55	5.95-19.98	0.10-0.12	0.0-2.9	0.5-1.0	.17	.17	2	2	134
	4-18	90	1	5-12	1.50-1.70	2.00-19.98	0.09-0.11	0.0-2.9	0.5-1.0	.28	.15			
	18-60			---	---	0.20-0.60	---	---	---	---	---			
Ronson-----	0-9	66	20	10-18	1.30-1.40	2.00-6.00	0.11-0.17	0.0-2.9	2.0-4.0	.20	.20	3	3	86
	9-35	66	20	10-18	1.35-1.45	2.00-6.00	0.09-0.15	0.0-2.9	0.5-1.0	.24	.24			
	35-60			---	---	0.20-0.60	---	---	0.0-0.5	---	---			
Duda-----	0-14	67	23	7-15	1.25-1.30	5.95-19.98	0.11-0.15	0.0-2.9	1.0-3.0	.24	.24	3	3	86
	14-36	87	7	3-10	1.45-1.60	5.95-19.98	0.08-0.10	0.0-2.9	0.0-1.0	.15	.15			
	36-60			---	---	0.20-0.60	---	---	---	---	---			

PHYSICAL PROPERTIES OF THE SOILS
Keya Paha County, Nebraska: Published

(Single entries under "Sand and Silt" are a representative percentage are calculated using an algorithm. Entries under "Erosion factors--T" apply to the entire profile. Entries under "Wind erodibility group" and "Wind erodibility index" apply only to the surface layer)

Map symbol and soil name	Depth	Sand	Silt	Clay	Moist bulk density	Permea- bility (Ksat)	Available water capacity	Linear extensi- bility	Organic matter	Erosion factors			Wind erodi- bility group	Wind erodi- bility index
										K	Kf	T		
Tu: Hennings-----	In	Pct	Pct	Pct	g/cc	in/hr	In/in	Pct	Pct					
	0-18	67	20	7-20	1.25-1.50	0.57-5.95	0.10-0.18	0.0-2.9	1.0-2.0	.20	.20	4	3	86
	18-24	56	18	18-35	1.30-1.65	0.20-0.60	0.09-0.20	3.0-5.9	0.5-1.0	.37	.37			
	24-27	67	20	5-20	1.25-1.50	0.57-5.95	0.09-0.20	0.0-2.9	0.0-0.5	.37	.37			
	27-48	84	6	3-15	1.25-1.70	1.98-19.98	0.07-0.12	0.0-2.9	0.0-0.5	.17	.17			
	48-60			---	---	0.20-0.60	---	---	---	---	---			
VaF: Valentine----	0-7	96	1	0-6	1.40-1.60	5.95-19.98	0.07-0.09	0.0-2.9	0.5-1.0	.15	.15	5	1	250
	7-60	96	1	0-6	1.60-1.80	5.95-19.98	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
VaG: Valentine----	0-4	96	1	0-6	1.40-1.60	5.95-19.98	0.07-0.09	0.0-2.9	0.5-1.0	.15	.15	5	1	250
	4-60	96	1	0-6	1.60-1.80	5.95-19.98	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
VbD: Valentine----	0-5	87	7	2-10	1.35-1.55	5.95-19.98	0.10-0.12	0.0-2.9	0.5-1.0	.17	.17	5	2	134
	5-60	96	1	0-6	1.60-1.80	5.95-19.98	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
VcF: Valentine----	0-9	96	1	0-6	1.40-1.60	5.95-19.98	0.07-0.09	0.0-2.9	0.5-1.0	.15	.15	5	1	250
	9-60	96	1	0-6	1.60-1.80	5.95-19.98	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
Longpine-----	0-8	65	27	7-12	1.30-1.50	2.00-6.00	0.16-0.18	0.0-2.9	0.5-1.0	.24	.24	2	3	86
	8-13	65	27	5-12	1.50-1.70	2.00-6.00	0.09-0.11	0.0-2.9	0.5-1.0	.15	.28			
	13-60			---	---	0.20-0.60	---	---	---	---	---			
VdC: Valentine----	0-5	87	7	2-10	1.35-1.55	5.95-19.98	0.10-0.12	0.0-2.9	0.5-1.0	.17	.17	5	2	134
	5-60	96	1	0-6	1.60-1.80	5.95-19.98	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
Valentine----	0-5	87	2	8-15	1.35-1.55	5.95-19.98	0.10-0.12	0.0-2.9	0.5-1.0	.17	.17	5	2	134
	5-40	90	1	3-15	1.55-1.80	5.95-19.98	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
	40-60	18	29	45-60	1.10-1.40	0.20-0.57	0.08-0.14	6.0-8.9	0.0-0.5	.32	.32			
Wewela-----	0-7	86	7	5-10	1.30-1.50	5.95-19.98	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	3	2	134
	7-22	34	38	20-34	1.30-1.45	0.60-2.00	0.16-0.18	3.0-5.9	1.0-3.0	.32	.32			
	22-26	22	28	40-60	1.25-1.40	0.00-0.06	0.08-0.12	6.0-8.9	0.0-1.0	.37	.37			
	26-60			---	---	0.06-0.20	---	---	0.0-0.5	---	---			
VdF: Valentine----	0-8	87	7	2-10	1.35-1.55	5.95-19.98	0.10-0.12	0.0-2.9	0.5-1.0	.17	.17	5	2	134
	17-60	96	1	0-6	1.60-1.80	5.95-19.98	0.05-0.07	0.0-2.9	0.0-0.5	.15	.15			
Valentine----	0-9	87	2	8-15	1.35-1.55	5.95-19.98	0.10-0.12	0.0-2.9	0.5-1.0	.17	.17	5	2	134
	9-40	90	1	3-15	1.55-1.80	5.95-19.98	0.06-0.11	0.0-2.9	0.0-0.5	.15	.15			
	40-60	18	29	45-60	1.10-1.40	0.06-0.20	0.08-0.14	6.0-8.9	0.0-0.5	.32	.32			
Wewela-----	0-18	86	7	5-10	1.30-1.50	5.95-19.98	0.10-0.12	0.0-2.9	1.0-3.0	.17	.17	3	2	134
	18-23	55	18	20-34	1.30-1.45	0.60-2.00	0.16-0.18	3.0-5.9	1.0-3.0	.32	.32			
	23-40	22	28	40-60	1.25-1.40	0.00-0.06	0.08-0.12	6.0-8.9	0.0-1.0	.37	.37			
	40-60			---	---	0.06-0.20	---	---	0.0-0.5	---	---			
Ve: Verdel-----	0-18	17	48	30-40	1.30-1.50	0.06-0.57	0.21-0.23	6.0-8.9	1.0-3.0	.32	.32	5	7	38
	18-60	5	45	40-60	1.30-1.50	0.00-0.06	0.09-0.14	6.0-8.9	0.5-1.0	.32	.32			
VeB: Verdel-----	0-18	17	48	30-40	1.30-1.50	0.00-0.06	0.21-0.23	6.0-8.9	1.0-3.0	.32	.32	5	7	38
	18-60	5	45	40-60	1.30-1.50	0.06-0.57	0.09-0.14	6.0-8.9	0.5-1.0	.32	.32			
VeC: Verdel-----	0-18	17	48	30-40	1.30-1.50	0.00-0.06	0.21-0.23	6.0-8.9	1.0-3.0	.32	.32	5	7	38
	18-60	5	45	40-60	1.30-1.50	0.06-0.57	0.09-0.14	6.0-8.9	0.5-1.0	.32	.32			
Vo: Vetal-----	0-36	66	20	10-18	1.25-1.40	2.00-6.00	0.11-0.17	0.0-2.9	1.0-3.0	.20	.20	5	3	86
	36-50	66	19	12-18	1.25-1.40	2.00-6.00	0.11-0.17	0.0-2.9	0.5-2.0	.20	.20			
	50-60	85	1	2-18	1.30-1.40	2.00-19.98	0.11-0.17	0.0-2.9	0.5-2.0	.17	.17			
Vt: Vetal-----	0-34	45	41	10-18	1.20-1.30	2.00-6.00	0.17-0.21	0.0-2.9	1.0-3.0	.28	.28	5	5	56
	34-54	44	41	12-18	1.25-1.40	2.00-6.00	0.11-0.17	0.0-2.9	0.5-2.0	.20	.20			
	54-60	85	1	10-18	1.30-1.40	2.00-6.00	0.11-0.17	0.0-2.9	0.5-2.0	.17	.17			
VtB: Vetal-----	0-34	45	41	10-18	1.20-1.30	2.00-6.00	0.17-0.21	0.0-2.9	1.0-3.0	.28	.28	5	5	56
	34-54	44	41	12-18	1.25-1.40	2.00-6.00	0.11-0.17	0.0-2.9	0.5-2.0	.20	.20			
	54-60	85	1	2-18	1.30-1.40	2.00-19.98	0.11-0.17	0.0-2.9	0.5-2.0	.20	.20			
VtC: Vetal-----	0-34	45	41	10-18	1.20-1.30	2.00-6.00	0.17-0.21	0.0-2.9	1.0-3.0	.28	.28	5	5	56
	34-54	66	19	12-18	1.25-1.40	2.00-6.00	0.11-0.17	0.0-2.9	0.5-2.0	.20	.20			
	54-60	67	19	2-18	1.30-1.40	2.00-19.98	0.11-0.17	0.0-2.9	0.5-2.0	.20	.20			
WeB: Wewela-----	0-8	66	20	10-18	1.25-1.40	2.00-6.00	0.14-0.17	0.0-2.9	2.0-4.0	.24	.24	3	3	86
	8-16	55	18	20-34	1.30-1.45	0.20-2.00	0.16-0.18	3.0-5.9	1.0-3.0	.32	.32			
	16-36	22	28	40-60	1.25-1.40	0.00-0.06	0.08-0.12	6.0-8.9	0.0-1.0	.37	.37			
	36-60			---	---	0.06-0.20	---	---	0.0-0.5	---	---			
WeC: Wewela-----	0-8	66	20	10-18	1.25-1.40	2.00-6.00	0.14-0.17	0.0-2.9	2.0-4.0	.24	.24	3	3	86
	8-16	55	18	20-34	1.30-1.45	0.20-2.00	0.16-0.18	3.0-5.9	1.0-3.0	.32	.32			
	16-36	22	28	40-60	1.25-1.40	0.00-0.06	0.08-0.12	6.0-8.9	0.0-1.0	.37	.37			
	36-60			---	---	0.06-0.20	---	---	0.0-0.5	---	---			
zwa: Water-----	---			---	---	---	---	---	---	---	---	-	---	---
zwb: Water-----	---			---	---	---	---	---	---	---	---	-	---	---

CHEMICAL PROPERTIES OF THE SOILS
Keya Paha County, Nebraska

The Chemical Properties table shows estimates of some characteristics and features that affect soil behavior. These estimates are given for the major layers of each soil in the survey area. The estimates are based on field observations and on test data for these and similar soils. Depth to the upper and lower boundaries of each layer is indicated.

Cation-exchange capacity is the total amount of extractable bases that can be held by the soil, expressed in terms of milliequivalents per 100 grams of soil at neutrality (pH 7.0) or at some other stated pH value. Soils having a low cation-exchange capacity hold fewer cations and may require more frequent applications of fertilizer than soils having a high cation-exchange capacity. Soils having a high cation-exchange capacity can retain cations. The ability to retain cations helps to prevent the pollution of ground water.

Soil reaction is a measure of acidity or alkalinity and is expressed as a range in pH values. The range in pH of each major horizon is based on many field tests. For many soils, values have been verified by laboratory analyses. Soil reaction is important in selecting crops and other plants, in evaluating soil amendments for fertility and stabilization, and in determining the risk of corrosion.

Calcium carbonate equivalent is the percent of carbonates, by weight, in the fraction of the soil less than 2 millimeters in size. The availability of plant nutrients is influenced by the amount of carbonates in the soil. Incorporating nitrogen fertilizer into calcareous soils helps to prevent nitrite accumulation and ammonium-N volatilization.

Gypsum is expressed as a percent, by weight, of hydrated calcium sulfates in the fraction of the soil less than 20 millimeters in size. Gypsum is partially soluble in water and can be dissolved and removed by water. Soils that have a high content of gypsum may collapse if the gypsum is removed by percolating water.

Salinity is a measure of soluble salts in the soil at saturation. It is expressed as the electrical conductivity of the saturation extract, in millimhos per centimeter at 25 degrees C. Estimates are based on field and laboratory measurements at representative sites of nonirrigated soils. The salinity of irrigated soils is affected by the quality of the irrigation water and by the frequency of water application. Hence, the salinity of soils in individual fields can differ greatly from the value given in the table. Salinity affects the suitability of a soil for crop production, the stability of soil if used as construction material, and the potential of the soil to corrode metal and concrete.

Sodium adsorption ratio (SAR) is a measure of the amount of sodium (Na) relative to calcium (Ca) and magnesium (Mg) in the water extract from saturated soil paste. It is the ratio of the Na concentration divided by the square root of one-half of the Ca + Mg concentration. Soils that have SAR values of 13 or more may be characterized by an increased dispersion of organic matter and clay particles, reduced permeability and aeration, and a general degradation of soil structure.

CHEMICAL PROPERTIES OF THE SOILS--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Depth	Cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	meq/100g	pH	Pct	Pct	mmhos/cm	
Ab:							
Albaton Variant-	0-27	31-42	7.9-8.4	5-15	0	0	0
	27-40	18-30	7.9-8.4	5-15	0	0	0
	40-60	1.0-6.0	7.9-8.4	1-10	0	0	0
AmB:							
Anselmo-----	0-17	5.0-15	5.6-7.3	0	0	0	0
	17-54	5.0-15	6.1-7.8	0	0	0	0
	54-60	5.0-15	6.6-7.8	0-3	0	0	0
An:							
Anselmo-----	0-6	10-20	5.6-7.3	0	0	0	0
	6-24	5.0-15	6.1-7.8	0	0	0	0
	24-60	5.0-15	6.6-7.8	---	0	0	0
AnC:							
Anselmo-----	0-6	10-20	5.6-7.3	0	0	0	0
	6-44	5.0-15	6.1-7.8	0	0	0	0
	44-60	5.0-15	6.6-7.8	0-3	0	0	0
Ba:							
Barney-----	0-7	3.0-14	6.6-8.4	0-5	0	0	0
	7-30	2.0-7.0	6.6-8.4	0-5	0	0	0
	30-60	0.0-4.0	6.6-7.8	0	0	0	0
Bo:							
Boel-----	0-7	8.0-17	6.6-8.4	0-5	0	0	0
	7-60	0.0-4.0	6.6-8.4	0-5	0	0	0
Bt:							
Brocksburg-----	0-15	10-20	6.1-7.3	0	0	0	0
	15-30	15-25	6.6-7.8	0	0	0	0
	30-80	0.0-5.0	6.6-7.8	0	0	0	0
Cb:							
Cass-----	0-10	8.0-17	5.6-7.3	0	0	0	0
	10-40	4.0-12	6.1-8.4	0	0	0	0
	40-60	1.0-8.0	6.1-8.4	0	0	0	0
CcB:							
Cass-----	0-10	8.0-17	5.6-7.3	0	0	0	0
	10-40	4.0-12	6.1-8.4	0	0	0	0
	40-60	1.0-8.0	6.1-8.4	0	0	0	0
DdB:							
Duda-----	0-6	3.0-9.0	6.1-7.3	0	0	0.0-2.0	0
	6-25	2.0-8.0	6.1-7.8	0	0	0.0-2.0	0
	25-60	---	---	---	---	---	---
DdC:							
Duda-----	0-6	3.0-9.0	6.1-7.3	0	0	0.0-2.0	0
	6-25	2.0-8.0	6.1-7.8	0	0	0.0-2.0	0
	25-60	---	---	---	---	---	---
DuB:							
Dunday-----	0-15	5.0-10	6.1-7.3	0	0	0	0
	15-60	1.0-5.0	6.1-7.8	0	0	0	0
DxB:							
Dunday-----	0-15	5.0-10	6.1-7.3	0	0	0	0
	15-60	1.0-5.0	6.1-7.8	0	0	0	0
	6-25	3.0-9.0	6.1-7.3	0	0	0.0-2.0	0
	6-25	2.0-8.0	6.1-7.8	0	0	0.0-2.0	0
	25-60	---	---	---	---	---	---
EO:							
Els-----	0-7	0.0-5.0	5.6-7.3	0	0	0	0
	7-13	0.0-5.0	6.1-7.3	0	0	0	0
	13-60	0.0-5.0	6.1-7.8	0	0	0	0
Es:							
Elsmere-----	0-12	5.0-15	5.6-7.3	0	0	0	0
	12-24	0.0-5.0	5.6-7.3	0	0	0	0
	24-60	0.0-5.0	5.6-7.8	0	0	0	0
Ho:							
Holt-----	0-6	5.0-15	6.1-7.8	0	0	0.0-2.0	0
	6-10	10-20	6.6-7.8	0	0	0.0-2.0	0
	10-34	5.0-15	6.6-8.4	0-5	0	0.0-2.0	0-9
HoC:							
Holt-----	0-6	5.0-15	6.1-7.8	0	0	0.0-2.0	0
	6-10	10-20	6.6-7.8	0	0	0.0-2.0	0
	10-34	5.0-15	6.6-8.4	0-5	0	0.0-2.0	0-9
	34-60	---	---	---	---	---	---

CHEMICAL PROPERTIES OF THE SOILS--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Depth	Cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	meq/100g	pH	Pct	Pct	mmhos/cm	
HtC:							
Holt-----	0-6	5.0-15	6.1-7.8	0	0	0.0-2.0	0
	6-10	10-20	6.6-7.8	0	0	0.0-2.0	0
	10-34	5.0-15	6.6-8.4	0-5	0	0.0-2.0	0-9
	34-60	---	---	---	---	---	---
Longpine-----	0-9	5.0-10	6.6-8.4	0-5	0	0	0
	9-13	5.0-10	7.4-8.4	2-15	0	0	0
	13-60	---	---	---	---	---	---
HtD:							
Holt-----	0-6	5.0-15	6.1-7.8	0	0	0.0-2.0	0
	6-10	10-20	6.6-7.8	0	0	0.0-2.0	0
	10-34	5.0-15	6.6-8.4	0-5	0	0.0-2.0	0-9
	34-60	---	---	---	---	---	---
Longpine-----	0-9	5.0-10	6.6-8.4	0-5	0	0	0
	9-13	5.0-10	7.4-8.4	2-15	0	0	0
	13-60	---	---	---	---	---	---
IfD:							
Inavale-----	0-6	1.0-5.0	5.6-7.8	0	0	0	0
	6-24	1.0-10	5.6-7.8	0	0	0	0
	24-60	1.0-10	5.6-7.8	0	0	0	0
IgB:							
Inavale-----	0-6	1.0-5.0	5.6-7.8	0	0	0	0
	6-24	1.0-10	5.6-7.8	0	0	0	0
	24-60	1.0-10	5.6-7.8	0	0	0	0
IhB:							
Inavale-----	0-5	2.0-10	5.6-7.8	0	0	0	0
	5-15	1.0-10	5.6-7.8	0	0	0	0
	15-60	1.0-10	5.6-7.8	0	0	0	0
IpB:							
Ipaga-----	0-6	5.0-10	5.1-7.3	0	0	0	0
	6-60	0.0-5.0	5.1-7.3	0	0	0	0
Ja:							
Jansen-----	0-6	5.0-15	5.1-7.3	0	0	0	0
	6-22	12-25	5.1-7.3	0	0	0	0
	22-33	1.0-5.0	5.1-7.3	0	0	0	0
	33-60	0.0-2.0	5.1-7.3	0	0	0	0
Jn:							
Jansen-----	0-9	10-20	5.1-7.3	0	0	0	0
	9-24	12-25	5.1-7.3	0	0	0	0
	24-27	1.0-5.0	5.1-7.3	0	0	0	0
	27-60	0.0-2.0	5.1-7.3	0	0	0	0
JnC:							
Jansen-----	0-9	10-20	5.1-7.3	0	0	0	0
	9-24	12-25	5.1-7.3	0	0	0	0
	24-27	1.0-5.0	5.1-7.3	0	0	0	0
	27-60	0.0-2.0	5.1-7.3	0	0	0	0
JoB:							
Jansen-----	0-12	10-20	5.1-7.3	0	0	0	0
	12-22	12-25	5.1-7.3	0	0	0	0
	22-26	1.0-5.0	5.1-7.3	0	0	0	0
	26-60	0.0-2.0	5.1-7.3	0	0	0	0
Meadin-----	0-10	10-20	5.1-7.3	0	0	0	0
	10-16	5.0-15	5.1-7.3	0	0	0	0
	16-60	0.0-5.0	6.1-7.3	0	0	0	0
LaD:							
Labu-----	0-36	30-45	6.6-8.4	5-15	0	0	0
	36-60	---	---	---	---	---	---
LcF:							
Labu-----	0-36	30-45	6.6-8.4	5-15	0	0	0
	36-60	---	---	---	---	---	---
Sansarc-----	0-4	40-45	6.6-8.4	0-5	0	0.0-2.0	0-1
	4-12	35-45	7.4-8.4	1-10	0-2	0.0-2.0	0-1
	14-60	35-45	7.4-8.4	1-10	1-5	0.0-2.0	0-1
Lo:							
Loup-----	0-11	5.0-20	5.6-7.8	0	0	0	0
	11-60	0.0-5.0	5.6-7.3	0	0	0	0
Lp:							
Loup-----	0-11	5.0-20	5.6-7.8	0	0	0	0
	11-60	0.0-5.0	5.6-7.3	0	0	0	0

CHEMICAL PROPERTIES OF THE SOILS--Continued
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Map symbol and soil name	Depth	Cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	meq/100g	pH	Pct	Pct	mmhos/cm	
MaB:							
Holt Variant----	0-12	5.0-10	6.1-7.8	0	0	0.0-2.0	0
	12-48	5.0-15	6.6-8.4	0-5	0	0.0-2.0	0-9
	48-60	---	---	---	---	---	---
MaC:							
Holt Variant----	0-12	5.0-10	6.1-7.8	0	0	0.0-2.0	0
	12-48	5.0-15	6.6-8.4	0-5	0	0.0-2.0	0-9
	48-60	---	---	---	---	---	---
MfC:							
Holt Variant----	0-10	5.0-15	6.1-7.8	0	0	0.0-2.0	0
	10-48	5.0-15	6.6-8.4	0-5	0	0.0-2.0	0-9
	48-60	---	---	---	---	---	---
MkG:							
Mariaville-----	0-4	10-20	7.4-8.4	3-10	0	0.0-2.0	0
	4-16	10-20	7.4-8.4	8-14	0	0.0-2.0	0
	16-60	---	---	---	---	---	---
Keota-----	0-5	5.0-10	7.4-8.4	0-10	0	0	0
	5-36	5.0-15	7.9-8.4	0-10	0	0.0-2.0	0
	36-60	---	---	---	---	---	---
Mm:							
Marlake-----	0-8	10-25	6.1-8.4	0-5	0	0	0
	8-36	0.0-10	6.1-7.8	0	0	0	0
	36-60	0.0-5.0	6.1-7.3	0	0	0	0
MnF:							
Meadin-----	0-7	4.0-10	5.1-7.3	0	0	0	0
	7-11	4.0-12	5.1-7.3	0	0	0	0
	11-60	1.0-5.0	6.1-7.3	0	0	0	0
Mu:							
Munjor-----	0-6	5.0-15	7.4-8.4	1-10	0	0	0
	6-36	5.0-15	7.4-8.4	1-10	0	0	0
	36-60	1.0-5.0	7.4-8.4	1-10	0	0	0
OaB:							
O'Neill-----	0-7	10-20	5.1-6.5	0	0	0	0
	7-30	5.0-15	5.6-7.3	0	0	0	0
	30-60	0.0-5.0	5.6-7.3	0	0	0	0
Oe:							
O'Neill-----	0-6	10-20	5.1-6.5	0	0	0	0
	6-24	5.0-15	5.6-7.3	0	0	0	0
	24-60	0.0-5.0	5.6-7.3	0	0	0	0
OeC:							
O'Neill-----	0-6	10-20	5.1-6.5	0	0	0	0
	6-24	5.0-15	5.6-7.3	0	0	0	0
	24-60	0.0-5.0	5.6-7.3	0	0	0	0
OeD:							
O'Neill-----	0-6	10-20	5.1-6.5	0	0	0	0
	6-24	5.0-15	5.6-7.3	0	0	0	0
	24-60	0.0-5.0	5.6-7.3	0	0	0	0
OhB:							
O'Neill-----	0-7	10-20	5.1-6.5	0	0	0	0
	7-26	5.0-15	5.6-7.3	0	0	0	0
	26-60	0.0-5.0	5.6-7.3	0	0	0	0
Meadin-----	0-7	10-20	5.1-7.3	0	0	0	0
	7-12	5.0-15	5.1-7.3	0	0	0	0
	12-60	0.0-5.0	6.1-7.3	0	0	0	0
OkD:							
O'Neill-----	0-6	10-20	5.1-6.5	0	0	0	0
	6-21	5.0-15	5.6-7.3	0	0	0	0
	21-60	0.0-5.0	5.6-7.3	0	0	0	0
Valentine-----	0-5	0.0-6.0	5.6-7.3	0	0	0	0
	5-13	1.0-8.0	5.6-7.3	0	0	0	0
	13-60	0.0-5.0	5.6-7.3	0	0	0	0
On:							
Onita-----	0-16	20-30	5.6-7.3	0	0	0.0-2.0	0
	16-36	25-35	6.1-7.3	0	0	0.0-2.0	0
	36-60	20-30	7.4-8.4	5-15	0-1	0.0-2.0	0-1
Or:							
Ord-----	0-24	10-20	7.4-8.4	5-40	0	0.0-2.0	0-5
	24-36	5.0-15	6.6-8.4	0-5	0	0.0-2.0	0-2
	36-60	0.0-10	6.6-8.4	0-5	0	0	0
Loup-----	0-14	5.0-20	5.6-7.8	0	0	0	0
	14-60	0.0-5.0	5.6-7.3	0	0	0	0

CHEMICAL PROPERTIES OF THE SOILS--Continued
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Map symbol and soil name	Depth	Cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	meq/100g	pH	Pct	Pct	mmhos/cm	
Pf:							
Paka-----	0-24	10-25	6.6-7.3	0	0	0	0
	24-40	15-25	6.6-7.8	0	0	0	0
	40-60	---	---	---	---	---	---
Ph:							
Paka-----	0-14	10-45	6.6-7.3	0	0	0	0
	14-25	15-25	6.6-7.8	0	0	0	0
	25-41	10-25	7.4-8.4	0-5	0	0	0
	41-60	---	---	---	---	---	---
PhB:							
Paka-----	0-14	10-45	6.6-7.3	0	0	0	0
	14-25	15-25	6.6-7.8	0	0	0	0
	25-41	10-25	7.4-8.4	0-5	0	0	0
	41-60	---	---	---	---	---	---
Perched Wt-----	---	---	---	---	---	---	---
PmC:							
Paka-----	0-14	10-45	6.6-7.3	0	0	0	0
	14-25	15-25	6.6-7.8	0	0	0	0
	25-41	10-25	7.4-8.4	0-5	0	0	0
	41-60	---	---	---	---	---	---
Mariaville-----	0-4	10-20	7.4-8.4	3-10	0	0.0-2.0	0
	4-16	10-20	7.4-8.4	8-14	0	0.0-2.0	0
	16-60	---	---	---	---	---	---
PmF:							
Paka-----	0-14	10-45	6.6-7.3	0	0	0	0
	14-25	15-25	6.6-7.8	0	0	0	0
	25-41	10-25	7.4-8.4	0-5	0	0	0
	41-60	---	---	---	---	---	---
Mariaville-----	0-4	10-20	7.4-8.4	3-10	0	0.0-2.0	0
	4-16	10-20	7.4-8.4	8-14	0	0.0-2.0	0
	16-60	---	---	---	---	---	---
RaB:							
Ree-----	0-13	15-25	6.1-7.3	0	0	0.0-2.0	0
	13-54	18-27	6.6-8.4	0-10	0	0.0-2.0	0
	54-60	10-25	7.4-8.4	5-15	0	0.0-2.0	0
Rb:							
Ree-----	0-14	12-25	6.6-7.3	0	0	0	0
	14-25	15-26	6.6-7.3	0	0	0	0
	25-40	14-26	6.6-7.3	5-10	0	0	0
	40-54	30-45	6.6-7.8	1-5	0-5	0	0
	54-60	---	---	---	---	---	---
ReC:							
Reliance-----	0-11	20-25	6.1-7.3	0-1	0	0.0-2.0	0
	11-37	25-35	6.1-7.8	1-10	0	0.0-2.0	0
	37-48	20-30	7.4-8.4	5-20	0	0.0-2.0	0
	48-60	0.0-5.0	6.6-7.8	0-1	0	0	0
RoD:							
Ronson-----	0-13	10-20	6.1-8.4	0-5	0	0.0-2.0	0
	13-25	5.0-15	7.4-8.4	5-10	0	0.0-2.0	0
	25-60	---	---	---	---	---	---
Anselmo-----	0-6	10-20	5.6-7.3	0	0	0	0
	6-22	5.0-15	6.1-7.8	0	0	0	0
	22-60	5.0-15	6.6-7.8	0-3	0	0	0
RoF:							
Ronson-----	0-13	10-20	6.1-8.4	0-5	0	0.0-2.0	0
	13-25	5.0-15	7.4-8.4	5-10	0	0.0-2.0	0
	25-60	---	---	---	---	---	---
Anselmo-----	0-6	10-20	5.6-7.3	0	0	0	0
	6-22	5.0-15	6.1-7.8	0	0	0	0
	22-60	5.0-15	6.6-7.8	0-3	0	0	0
RtB:							
Ronson-----	0-13	10-20	6.1-8.4	0-5	0	0.0-2.0	0
	13-25	5.0-15	7.4-8.4	5-10	0	0.0-2.0	0
	25-60	---	---	---	---	---	---
Longpine-----	0-7	5.0-10	6.6-8.4	0-5	0	0	0
	7-17	5.0-10	7.4-8.4	2-15	0	0	0
	17-60	---	---	---	---	---	---
SaG:							
Sansarc-----	0-4	40-45	6.6-8.4	0-5	0	0.0-2.0	0-1
	4-12	35-45	7.4-8.4	1-10	0-2	0.0-2.0	0-1
	14-60	35-45	7.4-8.4	1-10	1-5	0.0-2.0	0-1

CHEMICAL PROPERTIES OF THE SOILS--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Depth	Cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	meq/100g	pH	Pct	Pct	mmhos/cm	
ScF:							
Schamber-----	0-4	10-15	6.1-8.4	0-5	0	0.0-2.0	0
	4-60	2.0-5.0	7.4-8.4	3-15	0	0.0-2.0	0
SmF:							
Simeon-----	0-12	0.0-5.0	6.1-7.8	0	0	0	0
	12-60	0.0-5.0	6.1-7.8	0	0	0	0
Holt Variant----	0-11	5.0-10	6.1-7.8	0	0	0.0-2.0	0
	11-26	5.0-15	6.6-8.4	0-5	0	0.0-2.0	0-9
	26-60	---	---	---	---	---	---
Ronson-----	0-13	5.0-15	6.6-8.4	0-5	0	0.0-2.0	0
	13-25	5.0-15	7.4-8.4	5-10	0	0.0-2.0	0
	25-60	---	---	---	---	---	---
SvF2:							
Simeon-----	0-8	0.0-5.0	6.1-7.8	0	0	0	0
	8-60	0.0-5.0	6.1-7.8	0	0	0	0
Valentine-----	0-7	0.0-6.0	5.6-7.3	0	0	0	0
	7-60	0.0-5.0	5.6-7.3	0	0	0	0
SwB:							
Simeon-----	0-18	0.0-5.0	6.1-7.8	0	0	0	0
	18-60	0.0-5.0	6.1-7.8	0	0	0	0
Valentine-----	0-6	2.0-8.0	5.6-7.3	0	0	0	0
	6-60	0.0-5.0	5.6-7.3	0	0	0	0
TaF:							
Longpine-----	0-5	0.0-5.0	6.6-8.4	0-5	0	0	0
	5-13	5.0-10	7.4-8.4	2-15	0	0	0
	13-60	---	---	---	---	---	---
TdE:							
Longpine-----	0-4	5.0-10	6.6-8.4	0-5	0	0	0
	4-11	5.0-10	7.4-8.4	2-15	0	0	0
	11-60	---	---	---	---	---	---
Duda-----	0-6	3.0-9.0	6.1-7.3	0	0	0.0-2.0	0
	6-39	2.0-8.0	6.1-7.8	0	0	0.0-2.0	0
	39-60	---	---	---	---	---	---
	---	---	---	---	---	---	---
Wt At 0-1 Foot--							
TrG:							
Longpine-----	0-4	0.0-5.0	6.6-8.4	0-5	0	0	0
	4-18	5.0-10	7.4-8.4	2-15	0	0	0
	18-60	---	---	---	---	---	---
Ronson-----	0-9	10-20	6.1-8.4	0-5	0	0.0-2.0	0
	9-35	5.0-15	7.4-8.4	5-10	0	0.0-2.0	0
	35-60	---	---	---	---	---	---
Duda-----	0-14	5.0-14	6.1-7.3	0	0	0.0-2.0	0
	14-36	2.0-8.0	6.1-7.8	0	0	0.0-2.0	0
	36-60	---	---	---	---	---	---
Tu:							
Hennings-----	0-18	5.0-15	5.6-7.3	0	0	0	0
	18-24	15-25	6.6-7.8	0	0	0	0
	24-27	10-20	7.4-8.4	1-10	0	0.0-2.0	0-5
	27-48	5.0-15	7.9-9.0	1-10	0	0.0-2.0	0-5
	48-60	---	---	---	---	---	---
VaF:							
Valentine-----	0-7	0.0-6.0	5.6-7.3	0	0	0	0
	7-60	0.0-5.0	5.6-7.3	0	0	0	0
VaG:							
Valentine-----	0-4	0.0-6.0	5.6-7.3	0	0	0	0
	4-60	0.0-5.0	5.6-7.3	0	0	0	0
VbD:							
Valentine-----	0-5	2.0-8.0	5.6-7.3	0	0	0	0
	5-60	0.0-5.0	5.6-7.3	0	0	0	0
VcF:							
Valentine-----	0-9	0.0-6.0	5.6-7.3	0	0	0	0
	9-60	0.0-5.0	5.6-7.3	0	0	0	0
Longpine-----	0-8	5.0-10	6.6-8.4	0-5	0	0	0
	8-13	5.0-10	7.4-8.4	2-15	0	0	0
	13-60	---	---	---	---	---	---

CHEMICAL PROPERTIES OF THE SOILS--Continued
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Map symbol and soil name	Depth	Cation- exchange capacity	Soil reaction	Calcium carbonate	Gypsum	Salinity	Sodium adsorption ratio
	In	meq/100g	pH	Pct	Pct	mmhos/cm	
VdC:							
Valentine-----	0-5	2.0-8.0	5.6-7.3	0	0	0	0
	5-60	0.0-5.0	5.6-7.3	0	0	0	0
Valentine-----	0-5	6.0-12	5.6-7.3	0	0	0	0
	5-40	2.0-11	5.6-7.3	0	0	0	0
	40-60	31-43	7.4-8.4	0-5	0-5	0.0-2.0	1-10
Wewela-----	0-7	4.0-10	6.1-7.3	0	0	0.0-2.0	0
	7-22	15-26	6.1-7.3	0-10	0	0.0-2.0	0
	22-26	28-43	6.1-8.4	0-10	0	0.0-2.0	0
	26-60	---	---	---	---	---	---
VdF:							
Valentine-----	0-8	2.0-8.0	5.6-7.3	0	0	0	0
	17-60	0.0-5.0	5.6-7.3	0	0	0	0
Valentine-----	0-9	6.0-12	5.6-7.3	0	0	0	0
	9-40	2.0-11	5.6-7.3	0	0	0	0
	40-60	31-43	7.4-8.4	0-5	0-5	0.0-2.0	1-10
Wewela-----	0-18	4.0-10	6.1-7.3	0	0	0.0-2.0	0
	18-23	15-26	6.1-7.3	0-10	0	0.0-2.0	0
	23-40	28-43	6.1-8.4	0-10	0	0.0-2.0	0
	40-60	---	---	---	---	---	---
Ve:							
Verdel-----	0-18	25-35	6.1-7.8	0	0	0	0-2
	18-60	20-35	6.6-9.0	0-5	0	0	0-2
VeB:							
Verdel-----	0-18	25-35	6.1-7.8	0	0	0	0-2
	18-60	20-35	6.6-9.0	0-5	0	0	0-2
VeC:							
Verdel-----	0-18	25-35	6.1-7.8	0	0	0	0-2
	18-60	20-35	6.6-9.0	0-5	0	0	0-2
Vo:							
Vetal-----	0-36	10-22	5.6-7.8	0	0	0	0
	36-50	10-22	6.1-7.8	0	0	0	0
	50-60	9.0-19	6.1-8.4	0-5	0	0	0
Vt:							
Vetal-----	0-34	10-22	5.6-7.8	0	0	0	0
	34-54	10-22	6.1-7.8	0	0	0	0
	54-60	9.0-19	6.1-8.4	0-5	0	0	0
VtB:							
Vetal-----	0-34	10-22	5.6-7.8	0	0	0	0
	34-54	10-22	6.1-7.8	0	0	0	0
	54-60	9.0-19	6.1-8.4	0-5	0	0	0
VtC:							
Vetal-----	0-34	10-22	5.6-7.8	0	0	0	0
	34-54	10-22	6.1-7.8	0	0	0	0
	54-60	9.0-19	6.1-8.4	0-5	0	0	0
WeB:							
Wewela-----	0-8	9.0-17	6.1-7.3	0	0	0.0-2.0	0
	8-16	15-26	6.1-7.3	0-10	0	0.0-2.0	0
	16-36	28-43	6.1-8.4	0-10	0	0.0-2.0	0
	36-60	---	---	---	---	---	---
WeC:							
Wewela-----	0-8	9.0-17	6.1-7.3	0	0	0.0-2.0	0
	8-16	15-26	6.1-7.3	0-10	0	0.0-2.0	0
	16-36	28-43	6.1-8.4	0-10	0	0.0-2.0	0
	36-60	---	---	---	---	---	---
zwa:							
Water-----	---	---	---	---	---	---	---
zwb:							
Water-----	---	---	---	---	---	---	---

WATER FEATURES Keya Paha County, Nebraska

The Water Features table gives estimates of various water features. The estimates are used in land use planning that involves engineering considerations. Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The four hydrologic soil groups are:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

The months in the table indicate the portion of the year in which the feature is most likely to be a concern.

Water table refers to a saturated zone in the soil. The Water Features table indicates, by month, depth to the top (upper limit) and base (lower limit) of the saturated zone in most years. Estimates of the upper and lower limits are based mainly on observations of the water table at selected sites and on evidence of a saturated zone, namely grayish colors or mottles (redoximorphic features) in the soil. A saturated zone that lasts for less than a month is not considered a water table. Ponding is standing water in a closed depression. Unless a drainage system is installed, the water is removed only by percolation, transpiration, or evaporation. The Water Features table indicates surface water depth and the duration and frequency of ponding. Duration is expressed as very brief if less than 2 days, brief if 2 to 7 days, long if 7 to 30 days, and very long if more than 30 days. Frequency is expressed as none, rare, occasional, and frequent. None means that ponding is not probable; rare that it is unlikely but possible under unusual weather conditions (the chance of ponding is nearly 0 percent to 5 percent in any year); occasional that it occurs, on the average, once or less in 2 years (the chance of ponding is 5 to 50 percent in any year); and frequent that it occurs, on the average, more than once in 2 years (the chance of ponding is more than 50 percent in any year).

Flooding, the temporary inundation of an area, is caused by overflowing streams, by runoff from adjacent slopes, or by tides. Water standing for short periods after rainfall or snowmelt is not considered flooding, and water standing in swamps and marshes is considered ponding rather than flooding.

Duration and frequency are estimated. Duration is expressed as extremely brief if 0.1 hour to 4 hours, very brief if 4 hours to 2 days, brief if 2 to 7 days, long if 7 to 30 days, and very long if more than 30 days. Frequency is expressed as none, very rare, rare, occasional, frequent, and very frequent. None means that flooding is not probable; very rare that it is very unlikely but possible under extremely unusual weather conditions (the chance of flooding is less than 1 percent in any year); rare that it is unlikely but possible under unusual weather conditions (the chance of flooding is 1 to 5 percent in any year); occasional that it occurs infrequently under normal weather conditions (the chance of flooding is 5 to 50 percent in any year); frequent that it is likely to occur often under normal weather conditions (the chance of flooding is more than 50 percent in any year but is less than 50 percent in all months in any year); and very frequent that it is likely to occur very often under normal weather conditions (the chance of flooding is more than 50 percent in all months of any year).

The information is based on evidence in the soil profile, namely thin strata of gravel, sand, silt, or clay deposited by floodwater; irregular decrease in organic matter content with increasing depth; and little or no horizon development.

Also considered are local information about the extent and levels of flooding and the relation of each soil on the landscape to historic floods. Information on the extent of flooding based on soil data is less specific than that provided by detailed engineering surveys that delineate flood-prone areas at specific flood frequency levels.

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Hydro- logic group	Month	Soil Saturation		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
			Ft	Ft	Ft				
Ab: Albaton Variant-----	D	January	1.0-3.0	>6.0	---	---	---	---	None
		February	1.0-3.0	>6.0	---	---	---	---	None
		March	1.0-3.0	>6.0	---	---	---	Brief	Occasional
		April	1.0-3.0	>6.0	---	---	---	Brief	Occasional
		May	1.0-3.0	>6.0	---	---	---	Brief	Occasional
		June	---	---	---	---	---	Brief	Occasional
		December	1.0-3.0	>6.0	---	---	---	---	None
AmB: Anselmo-----	B		---	---	---	---	---	---	---
An: Anselmo-----	B		---	---	---	---	---	---	---
AnC: Anselmo-----	B		---	---	---	---	---	---	---
Ba: Barney-----	D	January	0.0-1.0	>6.0	---	---	---	---	None
		February	0.0-1.0	>6.0	---	---	---	Brief	Frequent
		March	0.0-1.0	>6.0	---	---	---	Brief	Frequent
		April	0.0-1.0	>6.0	---	---	---	Brief	Frequent
		May	0.0-1.0	>6.0	---	---	---	Brief	Frequent
		June	0.0-1.0	>6.0	---	---	---	Brief	Frequent
		July	---	---	---	---	---	Brief	Frequent
		November	0.0-1.0	>6.0	---	---	---	---	None
		December	0.0-1.0	>6.0	---	---	---	---	None
Bo: Boel-----	A	January	1.5-3.0	>6.0	---	---	---	---	None
		February	1.5-3.0	>6.0	---	---	---	---	None
		March	1.5-3.0	>6.0	---	---	---	Brief	Occasional
		April	1.5-3.0	>6.0	---	---	---	Brief	Occasional
		May	1.5-3.0	>6.0	---	---	---	Brief	Occasional
		June	---	---	---	---	---	Brief	Occasional
		November	1.5-3.0	>6.0	---	---	---	---	None
		December	1.5-3.0	>6.0	---	---	---	---	None
Bt: Brocksburg-----	B		---	---	---	---	---	---	---
Cb: Cass-----	B	March	---	---	---	---	---	Brief	Rare
		April	---	---	---	---	---	Brief	Rare
		May	---	---	---	---	---	Brief	Rare
		June	---	---	---	---	---	Brief	Rare
CcB: Cass-----	B	March	---	---	---	---	---	Brief	Frequent
		April	---	---	---	---	---	Brief	Frequent
		May	---	---	---	---	---	Brief	Frequent
		June	---	---	---	---	---	Brief	Frequent
DdB: Duda-----	A		---	---	---	---	---	---	---
DdC: Duda-----	A		---	---	---	---	---	---	---
DuB: Dunday-----	A		---	---	---	---	---	---	---
DxB: Dunday-----	A		---	---	---	---	---	---	---
Duda-----	A		---	---	---	---	---	---	---
EO: Els-----	A	January	1.5-3.0	>6.0	---	---	---	---	None
		February	1.5-3.0	>6.0	---	---	---	---	None
		March	1.5-3.0	>6.0	---	---	---	---	None
		April	1.5-3.0	>6.0	---	---	---	---	None
		May	1.5-3.0	>6.0	---	---	---	---	None
		November	1.5-3.0	>6.0	---	---	---	---	None
		December	1.5-3.0	>6.0	---	---	---	---	None
Es:									

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Hydro- logic group	Month	Soil Saturation		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
Elsmere-----	A		Ft	Ft	Ft				
		January	1.5-3.0	>6.0	---	---	---	---	None
		February	1.5-3.0	>6.0	---	---	---	---	None
		March	1.5-3.0	>6.0	---	---	---	---	None
		April	1.5-3.0	>6.0	---	---	---	---	None
		May	1.5-3.0	>6.0	---	---	---	---	None
		November	1.5-3.0	>6.0	---	---	---	---	None
		December	1.5-3.0	>6.0	---	---	---	---	None
Ho: Holt-----	B		---	---	---	---	---	---	---
HoC: Holt-----	B		---	---	---	---	---	---	---
HtC: Holt-----	B		---	---	---	---	---	---	---
Longpine-----	D		---	---	---	---	---	---	---
HtD: Holt-----	B		---	---	---	---	---	---	---
Longpine-----	D		---	---	---	---	---	---	---
IfD: Inavale-----	A		---	---	---	---	---	---	---
IgB: Inavale-----	A		---	---	---	---	---	---	---
		January	---	---	---	---	---	Very brief	Frequent
		February	---	---	---	---	---	Very brief	Frequent
		March	---	---	---	---	---	Very brief	Frequent
		April	---	---	---	---	---	Very brief	Frequent
		May	---	---	---	---	---	Very brief	Frequent
		June	---	---	---	---	---	Very brief	Frequent
		July	---	---	---	---	---	Very brief	Frequent
IhB: Inavale-----	A		---	---	---	---	---	---	---
IpB: Ipage-----	A		---	---	---	---	---	---	---
		January	3.0-5.0	>6.0	---	---	---	---	None
		February	3.0-5.0	>6.0	---	---	---	---	None
		March	3.0-5.0	>6.0	---	---	---	---	None
		April	3.0-5.0	>6.0	---	---	---	---	None
		May	3.0-5.0	>6.0	---	---	---	---	None
		June	3.0-5.0	>6.0	---	---	---	---	None
		December	3.0-5.0	>6.0	---	---	---	---	None
Ja: Jansen-----	B		---	---	---	---	---	---	---
Jn: Jansen-----	B		---	---	---	---	---	---	---
JnC: Jansen-----	B		---	---	---	---	---	---	---
JoB: Jansen-----	B		---	---	---	---	---	---	---
Meadin-----	A		---	---	---	---	---	---	---
LaD: Labu-----	D		---	---	---	---	---	---	---
LcF: Labu-----	D		---	---	---	---	---	---	---
Sansarc-----	D		---	---	---	---	---	---	---
Lo: Loup-----	D		---	---	---	---	---	---	---
		January	0.0-1.5	>6.0	---	---	---	---	None
		February	0.0-1.5	>6.0	---	---	---	---	None
		March	0.0-1.5	>6.0	---	---	---	---	None
		April	0.0-1.5	>6.0	---	---	---	---	None
		May	0.0-1.5	>6.0	---	---	---	---	None
		November	0.0-1.5	>6.0	---	---	---	---	None
		December	0.0-1.5	>6.0	---	---	---	---	None
Lp:									

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Map symbol and soil name	Hydro- logic group	Month	Soil Saturation		Ponding			Flooding	
			Upper limit	Lower limit	Surface water depth	Duration	Frequency	Duration	Frequency
Loup-----	D		Ft	Ft	Ft				
		January	0.0	>6.0	0.0-0.5	Long	Frequent	---	None
		February	0.0	>6.0	0.0-0.5	Long	Frequent	---	None
		March	0.0	>6.0	0.0-0.5	Long	Frequent	---	None
		April	0.0	>6.0	0.0-0.5	Long	Frequent	---	None
		May	0.0	>6.0	0.0-0.5	Long	Frequent	---	None
		June	0.0	>6.0	0.0-0.5	Long	Frequent	---	None
		November	0.0	>6.0	0.0-0.5	Long	Frequent	---	None
		December	0.0	>6.0	0.0-0.5	Long	Frequent	---	None
MaB: Holt Variant-----	B		---	---	---	---	---	---	---
MaC: Holt Variant-----	B		---	---	---	---	---	---	---
MfC: Holt Variant-----	B		---	---	---	---	---	---	---
MkG: Mariaville-----	D		---	---	---	---	---	---	---
Keota-----	B		---	---	---	---	---	---	---
Mm: Marlake-----	D		---	---	---	---	---	---	---
		January	0.0	>6.0	0.0-2.0	Very long	Frequent	---	None
		February	0.0	>6.0	0.0-2.0	Very long	Frequent	---	None
		March	0.0	>6.0	0.0-2.0	Very long	Frequent	---	None
		April	0.0	>6.0	0.0-2.0	Very long	Frequent	---	None
		May	0.0	>6.0	0.0-2.0	Very long	Frequent	---	None
		June	0.0	>6.0	0.0-2.0	Very long	Frequent	---	None
		November	0.0	>6.0	0.0-2.0	Very long	Frequent	---	None
		December	0.0	>6.0	0.0-2.0	Very long	Frequent	---	None
MnF: Meadin-----	A		---	---	---	---	---	---	---
Mu: Munjor-----	B		---	---	---	---	---	---	---
		March	---	---	---	---	---	Brief	Rare
		April	---	---	---	---	---	Brief	Rare
		May	---	---	---	---	---	Brief	Rare
		June	---	---	---	---	---	Brief	Rare
OaB: O'Neill-----	B		---	---	---	---	---	---	---
Oe: O'Neill-----	B		---	---	---	---	---	---	---
OeC: O'Neill-----	B		---	---	---	---	---	---	---
OeD: O'Neill-----	B		---	---	---	---	---	---	---
OhB: O'Neill-----	B		---	---	---	---	---	---	---
Meadin-----	A		---	---	---	---	---	---	---
OkD: O'Neill-----	B		---	---	---	---	---	---	---
Valentine-----	A		---	---	---	---	---	---	---
On: Onita-----	C		---	---	---	---	---	---	---
Or: Ord-----	B	January	1.0-4.0	4.0-5.0	---	---	---	---	None
		January	1.5-3.0	>6.0	---	---	---	---	None
		February	1.5-3.0	>6.0	---	---	---	---	None
		March	1.5-3.0	>6.0	---	---	---	---	None
		April	1.5-3.0	>6.0	---	---	---	---	None
		May	1.5-3.0	>6.0	---	---	---	---	None
		November	1.5-3.0	>6.0	---	---	---	---	None
		December	1.5-3.0	>6.0	---	---	---	---	None
Loup-----	D		---	---	---	---	---	---	---
		January	0.0-1.5	>6.0	---	---	---	---	None
		February	0.0-1.5	>6.0	---	---	---	---	None
		March	0.0-1.5	>6.0	---	---	---	---	None
		April	0.0-1.5	>6.0	---	---	---	---	None
		May	0.0-1.5	>6.0	---	---	---	---	None
		November	0.0-1.5	>6.0	---	---	---	---	None
		December	0.0-1.5	>6.0	---	---	---	---	None

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Hydro- logic group	Month	Soil Saturation		Surface water depth	Ponding		Flooding	
			Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
Pf: Paka-----	B		Ft	Ft	Ft				
Ph: Paka-----	B		---	---	---	---	---	---	---
PhB: Paka-----	B		---	---	---	---	---	---	---
Perched Wt-----	---		---	---	---	---	---	---	---
PmC: Paka-----	B		---	---	---	---	---	---	---
Mariaville-----	D		---	---	---	---	---	---	---
PmF: Paka-----	B		---	---	---	---	---	---	---
Mariaville-----	D		---	---	---	---	---	---	---
RaB: Ree-----	B		---	---	---	---	---	---	---
Rb: Ree-----	B		---	---	---	---	---	---	---
ReC: Reliance-----	C		---	---	---	---	---	---	---
RoD: Ronson-----	B		---	---	---	---	---	---	---
Anselmo-----	B		---	---	---	---	---	---	---
RoF: Ronson-----	B		---	---	---	---	---	---	---
Anselmo-----	B		---	---	---	---	---	---	---
RtB: Ronson-----	B		---	---	---	---	---	---	---
Longpine-----	D		---	---	---	---	---	---	---
SaG: Sansarc-----	D		---	---	---	---	---	---	---
ScF: Schamber-----	A		---	---	---	---	---	---	---
SmF: Simeon-----	A		---	---	---	---	---	---	---
Holt Variant-----	B		---	---	---	---	---	---	---
Ronson-----	B		---	---	---	---	---	---	---
SvF2: Simeon-----	A		---	---	---	---	---	---	---
Valentine-----	A		---	---	---	---	---	---	---
SwB: Simeon-----	A		---	---	---	---	---	---	---
Valentine-----	A		---	---	---	---	---	---	---
TaF: Longpine-----	D		---	---	---	---	---	---	---
TdE: Longpine-----	D		---	---	---	---	---	---	---
Duda-----	A		---	---	---	---	---	---	---
Wt At 0-1 Foot-----	---		---	---	---	---	---	---	---
TrG: Longpine-----	D		---	---	---	---	---	---	---
Ronson-----	B		---	---	---	---	---	---	---
Duda-----	A		---	---	---	---	---	---	---

(Depths of layers are in feet. See text for definitions of terms used in this table. Estimates of the frequency of ponding and flooding apply to the whole year rather than to individual months. Absence of an entry indicates that the feature is not a concern or that data were not estimated.)

Map symbol and soil name	Hydro- logic group	Month	Soil Saturation		Surface water depth	Ponding		Flooding	
			Upper limit	Lower limit		Duration	Frequency	Duration	Frequency
Tu: Hennings-----	B		---	---	---	---	---	---	---
VaF: Valentine-----	A		---	---	---	---	---	---	---
VaG: Valentine-----	A		---	---	---	---	---	---	---
VbD: Valentine-----	A		---	---	---	---	---	---	---
VcF: Valentine-----	A		---	---	---	---	---	---	---
Longpine-----	D		---	---	---	---	---	---	---
VdC: Valentine-----	A		---	---	---	---	---	---	---
Valentine-----	A		---	---	---	---	---	---	---
		March	3.0-5.0	3.0-5.0	---	---	---	---	None
		April	3.0-5.0	3.0-5.0	---	---	---	---	None
		May	3.0-5.0	3.0-5.0	---	---	---	---	None
		June	3.0-5.0	3.0-5.0	---	---	---	---	None
Wewela-----	B		---	---	---	---	---	---	---
VdF: Valentine-----	A		---	---	---	---	---	---	---
Valentine-----	A		---	---	---	---	---	---	---
		March	3.0-5.0	3.0-5.0	---	---	---	---	None
		April	3.0-5.0	3.0-5.0	---	---	---	---	None
		May	3.0-5.0	3.0-5.0	---	---	---	---	None
		June	3.0-5.0	3.0-5.0	---	---	---	---	None
Wewela-----	B		---	---	---	---	---	---	---
Ve: Verdel-----	D		---	---	---	---	---	---	---
VeB: Verdel-----	D		---	---	---	---	---	---	---
VeC: Verdel-----	D		---	---	---	---	---	---	---
Vo: Vetal-----	B		---	---	---	---	---	---	---
Vt: Vetal-----	B		---	---	---	---	---	---	---
VtB: Vetal-----	B		---	---	---	---	---	---	---
VtC: Vetal-----	B		---	---	---	---	---	---	---
WeB: Wewela-----	B		---	---	---	---	---	---	---
WeC: Wewela-----	B		---	---	---	---	---	---	---
zwa: Water-----	---		---	---	---	---	---	---	---
zwb: Water-----	---		---	---	---	---	---	---	---

The following table gives estimates of various soil features. The estimates are used in land use planning that involves engineering considerations.

A restrictive layer is a nearly continuous layer that has one or more physical, chemical, or thermal properties that significantly impede the movement of water and air through the soil or that restrict roots or otherwise provide an unfavorable root environment. Examples are bedrock, cemented layers, dense layers, and frozen layers. The table indicates the hardness and thickness of the restrictive layer, both of which significantly affect the ease of excavation. Depth to top is the vertical distance from the soil surface to the upper boundary of the restrictive layer.

Potential for frost action is the likelihood of upward or lateral expansion of the soil caused by the formation of segregated ice lenses (frost heave) and the subsequent collapse of the soil and loss of strength on thawing. Frost action occurs when moisture moves into the freezing zone of the soil. Temperature, texture, density, permeability, content of organic matter, and depth to the water table are the most important factors considered in evaluating the potential for frost action. It is assumed that the soil is not insulated by vegetation or snow and is not artificially drained. Silty and highly structured, clayey soils that have a high water table in winter are the most susceptible to frost action. Well drained, very gravelly, or very sandy soils are the least susceptible. Frost heave and low soil strength during thawing cause damage to pavements and other rigid structures.

Risk of corrosion pertains to potential soil-induced electrochemical or chemical action that corrodes or weakens uncoated steel or concrete. The rate of corrosion of uncoated steel is related to such factors as soil moisture, particle-size distribution, acidity, and electrical conductivity of the soil. The rate of corrosion of concrete is based mainly on the sulfate and sodium content, texture, moisture content, and acidity of the soil. Special site examination and design may be needed if the combination of factors results in a severe hazard of corrosion. The steel or concrete in installations that intersect soil boundaries or soil layers is more susceptible to corrosion than the steel or concrete in installations that are entirely within one kind of soil or within one soil layer.

For uncoated steel, the risk of corrosion, expressed as low, moderate, or high, is based on soil drainage class, total acidity, electrical resistivity near field capacity, and electrical conductivity of the saturation extract.

For concrete, the risk of corrosion also is expressed as low, moderate, or high. It is based on soil texture, acidity, and amount of sulfates in the saturation extract.

Map symbol and soil name	Restrictive layer				Potential for Frost action	Risk of corrosion	
	Kind	Depth to top In	Thickness In	Hardness		Uncoated Steel	Concrete
Ab: Albaton Variant-----	---	---	---	---	High	High	Low
AmB: Anselmo-----	---	---	---	---	Moderate	Moderate	Low
An: Anselmo-----	---	---	---	---	Moderate	Moderate	Low
AnC: Anselmo-----	---	---	---	---	Moderate	Moderate	Low
Ba: Barney-----	---	---	---	---	Moderate	High	Low
Bo: Boel-----	---	---	---	---	Moderate	High	Low
Bt: Brocksburg-----	---	---	---	---	Moderate	Low	Low
Cb: Cass-----	---	---	---	---	Moderate	Moderate	Low
CcB: Cass-----	---	---	---	---	Moderate	Moderate	Low
DdB: Duda-----	20-40	Bedrock (paralithic)	---	---	Low	Moderate	Low
DdC: Duda-----	20-40	Bedrock (paralithic)	---	---	Low	Moderate	Low
DuB: Dunday-----	---	---	---	---	Low	Low	Low
DxB: Dunday-----	---	---	---	---	Low	Low	Low
Duda-----	20-40	Bedrock (paralithic)	---	---	Low	Moderate	Low
Eo: Els-----	---	---	---	---	Moderate	Moderate	Low
Es: Elsmere-----	---	---	---	---	Moderate	Moderate	Low
Ho: Holt-----	20-40	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
HoC: Holt-----	20-40	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
HtC: Holt-----	20-40	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
Longpine-----	10-20	Bedrock (paralithic)	---	---	Low	High	Low
HtD: Holt-----	20-40	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
Longpine-----	10-20	Bedrock (paralithic)	---	---	Low	High	Low
IfD: Inavale-----	---	---	---	---	Low	Moderate	Low
IgB: Inavale-----	---	---	---	---	Low	Moderate	Low
IhB: Inavale-----	---	---	---	---	Low	Moderate	Low
IpB: Ipage-----	---	---	---	---	Moderate	Low	Moderate
Ja: Jansen-----	---	---	---	---	Moderate	Moderate	Low
Jn: Jansen-----	---	---	---	---	Moderate	Moderate	Low
JnC: Jansen-----	---	---	---	---	Moderate	Moderate	Low
JoB: Jansen-----	---	---	---	---	Moderate	Moderate	Low
Meadin-----	---	---	---	---	Low	Low	Moderate
LaD: Labu-----	20-40	Bedrock (paralithic)	---	---	Low	High	Moderate
LcF: Labu-----	20-40	Bedrock (paralithic)	---	---	Low	High	Moderate
Sansarc-----	4-20	Bedrock (paralithic)	---	---	Low	High	Moderate
Lo: Loup-----	---	---	---	---	Moderate	High	Low
Lp: Loup-----	---	---	---	---	Moderate	High	Low
MaB: Holt Variant----	40-60	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
MaC: Holt Variant----	40-60	Bedrock (paralithic)	---	---	Moderate	Moderate	Low

Map symbol and soil name	Restrictive layer				Potential for Frost action	Risk of corrosion	
	Kind	Depth to top	Thickness	Hardness		Uncoated Steel	Concrete
		In	In				
MfC: Holt Variant----	40-60	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
MkG: Mariaville-----	10-20	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
Keota-----	20-40	Bedrock (paralithic)	---	---	Low	High	Low
Mm: Marlake-----	---	---	---	---	Moderate	High	Low
MnF: Meadin-----	---	---	---	---	Low	Low	Moderate
Mu: Munjor-----	---	---	---	---	Low	Moderate	Low
OaB: O'neill-----	---	---	---	---	Moderate	Moderate	Low
Oe: O'neill-----	---	---	---	---	Moderate	Moderate	Low
OeC: O'neill-----	---	---	---	---	Moderate	Moderate	Low
OeD: O'neill-----	---	---	---	---	Moderate	Moderate	Low
OhB: O'neill-----	---	---	---	---	Moderate	Moderate	Low
Meadin-----	---	---	---	---	Low	Low	Moderate
OkD: O'neill-----	---	---	---	---	Moderate	Moderate	Low
Valentine-----	---	---	---	---	Low	Low	Low
On: Onita-----	---	---	---	---	Moderate	High	Low
Or: Ord-----	---	---	---	---	High	High	Low
Loup-----	---	---	---	---	Moderate	High	Low
Pf: Paka-----	40-60	Bedrock (paralithic)	---	---	Moderate	High	Low
Ph: Paka-----	40-60	Bedrock (paralithic)	---	---	Moderate	High	Low
PhB: Paka-----	40-60	Bedrock (paralithic)	---	---	Moderate	High	Low
Perched Wt-----	---	---	---	---	---	---	---
PmC: Paka-----	40-60	Bedrock (paralithic)	---	---	Moderate	High	Low
Mariaville-----	10-20	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
PmF: Paka-----	40-60	Bedrock (paralithic)	---	---	Moderate	High	Low
Mariaville-----	10-20	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
RaB: Ree-----	---	---	---	---	Moderate	High	Low
Rb: Ree-----	40-60	Bedrock (paralithic)	---	---	Moderate	High	Low
ReC: Reliance-----	---	---	---	---	Low	High	Low
RoD: Ronson-----	20-40	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
Anselmo-----	---	---	---	---	Moderate	Moderate	Low
RoF: Ronson-----	20-40	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
Anselmo-----	---	---	---	---	Moderate	Moderate	Low
RtB: Ronson-----	20-40	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
Longpine-----	10-20	Bedrock (paralithic)	---	---	Low	High	Low
SaG: Sansarc-----	4-20	Bedrock (paralithic)	---	---	Low	High	Moderate
ScF: Schamber-----	---	---	---	---	Low	Moderate	Low
SmF: Simeon-----	---	---	---	---	Low	Low	Low
Holt Variant----	40-60	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
Ronson-----	20-40	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
SvF2: Simeon-----	---	---	---	---	Low	Low	Low
Valentine-----	---	---	---	---	Low	Low	Low

Map symbol and soil name	Restrictive layer				Potential for Frost action	Risk of corrosion	
	Kind	Depth to top In	Thickness In	Hardness		Uncoated Steel	Concrete
SwB:							
Simeon-----	---	---	---	---	Low	Low	Low
Valentine-----	---	---	---	---	Low	Low	Low
TaF:							
Longpine-----	10-20	Bedrock (paralithic)	---	---	Low	High	Low
TdE:							
Longpine-----	10-20	Bedrock (paralithic)	---	---	Low	High	Low
Duda-----	20-40	Bedrock (paralithic)	---	---	Low	Moderate	Low
Wt At 0-1 Foot--	---	---	---	---	---	---	---
TrG:							
Longpine-----	10-20	Bedrock (paralithic)	---	---	Low	High	Low
Ronson-----	20-40	Bedrock (paralithic)	---	---	Moderate	Moderate	Low
Duda-----	20-40	Bedrock (paralithic)	---	---	Low	Moderate	Low
Tu:							
Hennings-----	40-60	Bedrock (paralithic)	---	---	Low	Moderate	Low
VaF:							
Valentine-----	---	---	---	---	Low	Low	Low
VaG:							
Valentine-----	---	---	---	---	Low	Low	Low
VbD:							
Valentine-----	---	---	---	---	Low	Low	Low
VcF:							
Valentine-----	---	---	---	---	Low	Low	Low
Longpine-----	10-20	Bedrock (paralithic)	---	---	Low	High	Low
VdC:							
Valentine-----	---	---	---	---	Low	Low	Low
Valentine-----	---	---	---	---	Low	High	Low
Wewela-----	20-40	Bedrock (paralithic)	---	---	Moderate	High	Moderate
VdF:							
Valentine-----	---	---	---	---	Low	Low	Low
Valentine-----	---	---	---	---	Low	High	Low
Wewela-----	20-40	Bedrock (paralithic)	---	---	Moderate	High	Moderate
Ve:							
Verdel-----	---	---	---	---	Moderate	High	Low
VeB:							
Verdel-----	---	---	---	---	Moderate	High	Low
VeC:							
Verdel-----	---	---	---	---	Moderate	High	Low
Vo:							
Vetal-----	---	---	---	---	Moderate	Moderate	Low
Vt:							
Vetal-----	---	---	---	---	Moderate	Moderate	Low
VtB:							
Vetal-----	---	---	---	---	Moderate	Moderate	Low
VtC:							
Vetal-----	---	---	---	---	Moderate	Moderate	Low
WeB:							
Wewela-----	20-40	Bedrock (paralithic)	---	---	Moderate	High	Moderate
WeC:							
Wewela-----	20-40	Bedrock (paralithic)	---	---	Moderate	High	Moderate
zwa:							
Water-----	---	---	---	---	---	---	---
zwb:							
Water-----	---	---	---	---	---	---	---

WATER MANAGEMENT
Keya Paha County, Nebraska

The soils of the survey area are rated in the Water Management table according to limitations that affect their suitability for water management. Soils are rated for pond reservoir areas, drainage, irrigation, terraces and diversions, and grassed waterways. Restrictive features that affect each soil for the specified use is also provided in the table.

The ratings in the table are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect the specified use. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slightly limited indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Moderately limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Limited indicates that the soil has one or more features that are significant limitations for the specified use. The limitations can be overcome, but generally require special design, soil reclamation, or installation procedures that may result in additional expense. Fair performance and moderate to high maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Limitation class terms, such as very limited or limited, etc., limitation ratings, and numerical ratings are shown for each soil feature listed. As many as three soil features may be listed for each soil component if applicable. The overall limitation rating for the soil component is based on the most severe limitation.

Pond reservoir areas hold water behind a dam or embankment. Soils best suited to this use have low seepage potential in the upper 60 inches. The seepage potential is determined by the permeability of the soil and the depth to fractured bedrock or other permeable material. Excessive slope can affect the storage capacity of the reservoir area.

Embankments, dikes, and levees are raised structures of soil material, generally less than 20 feet high, constructed to impound water or to protect land against overflow. In this table, the soils are rated as a source of material for embankment fill. The ratings apply to the soil material below the surface layer to a depth of about 5 feet. It is assumed that soil layers will be uniformly mixed and compacted during construction.

The ratings do not indicate the ability of the natural soil to support an embankment. Soil properties to a depth even greater than the height of the embankment can affect performance and safety of the embankment. Generally, deeper onsite investigation is needed to determine these properties.

Soil material in embankments must be resistant to seepage, piping, and erosion and have favorable compaction characteristics. Unfavorable features include less than 5 feet of suitable material and a high content of stones or boulders, organic matter, or salts or sodium. A high water table affects the amount of usable material. It also affects traffic ability.

Aquifer-fed excavated ponds are pits or dugouts that extend to a ground-water aquifer or to a depth below a permanent water table. Excluded are ponds that are fed only by surface runoff and embankment ponds that impound water 3 feet or more above the original surface. Excavated ponds are affected by depth to a permanent water table, permeability of the aquifer, and quality of the water as inferred from the salinity of the soil. Depth to bedrock and the content of large stones affect the ease of excavation.

Drainage is the removal of excess surface and subsurface water from the soil. How easily and effectively the soil is drained depends on the depth to bedrock, to a cemented pan, or to other layers that affect the rate of water movement; permeability; depth to a high water table or depth of standing water if the soil is subject to ponding; slope; susceptibility to flooding; subsidence of organic layers; and the potential for frost action. Excavating and grading and the stability of ditch banks are affected by depth to bedrock or to a cemented pan, large stones, slope, and the hazard of cutbanks caving. The productivity of the soil after drainage is adversely affected by extreme acidity or by toxic substances in the root zone, such as salts, sodium, and sulfur. Availability of drainage outlets is not considered in the ratings.

Irrigation is the controlled application of water to supplement rainfall and support plant growth. The design and management of an irrigation system are affected by depth to the water table, the need for drainage, flooding, available water capacity, intake rate, permeability, erosion hazard, and slope. The construction of a system is affected by large stones and depth to bedrock or to a cemented pan. The performance of a system is affected by the depth of the root zone, the amount of salts or sodium, and soil reaction.

Terraces and diversions are embankments or a combination of channels and ridges constructed across a slope to control erosion and conserve moisture by intercepting runoff. Slope, wetness, large stones, and depth to bedrock or to a cemented pan affect the construction of terraces and diversions. A restricted rooting depth, a very limited hazard of wind erosion or water erosion, an excessively coarse texture, and restricted permeability adversely affect maintenance.

Grassed waterways are natural or constructed channels, generally broad and shallow, which conduct surface water to outlets at a non-erosive velocity. Large stones, wetness, slope, and depth to bedrock or to a cemented pan affect the construction of grassed waterways. A hazard of wind erosion, low available water capacity, restricted rooting depth, toxic substances such as salts and sodium, and restricted permeability adversely affect the growth and maintenance of the grass after construction.

WATER MANAGEMENT--Continued
Keya Paha County, Nebraska

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Features affecting--			
	Drainage	Irrigation	Terraces and diversions	Grassed waterways
Ab: Albaton Variant-	Limitation: flooding frost action percs slowly	Limitation: percs slowly slow intake wetness	Limitation: too sandy wetness	Limitation: percs slowly wetness
AmB: Anselmo-----	Limitation: deep to water	Limitation: fast intake	Limitation: soil blowing	Favorable
An: Anselmo-----	Limitation: deep to water	Favorable	Limitation: soil blowing	Favorable
AnC: Anselmo-----	Limitation: deep to water	Limitation: slope	Limitation: soil blowing	Favorable
Ba: Barney-----	Limitation: flooding cutbanks cave	Limitation: rooting depth wetness droughty	Limitation: too sandy wetness	Limitation: rooting depth wetness droughty
Bo: Boel-----	Limitation: flooding cutbanks cave	Limitation: wetness droughty	Limitation: too sandy wetness soil blowing	Limitation: rooting depth droughty
Bt: Brocksburg-----	Limitation: deep to water	Favorable	Limitation: too sandy	Favorable
Cb: Cass-----	Limitation: deep to water	Favorable	Favorable	Favorable
CcB: Cass-----	Limitation: deep to water	Limitation: flooding	Favorable	Favorable
DdB: Duda-----	Limitation: deep to water	Limitation: fast intake droughty	Limitation: too sandy depth to rock	Limitation: depth to rock droughty
DdC: Duda-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy depth to rock	Limitation: depth to rock droughty
DuB: Dunday-----	Limitation: deep to water	Limitation: fast intake droughty	Limitation: too sandy soil blowing	Limitation: droughty
DxB: Dunday-----	Limitation: deep to water	Limitation: fast intake droughty	Limitation: too sandy soil blowing	Limitation: droughty
Duda-----	Limitation: deep to water	Limitation: fast intake droughty	Limitation: too sandy depth to rock	Limitation: depth to rock droughty
Eo: Els-----	Limitation: cutbanks cave	Limitation: fast intake wetness droughty	Limitation: too sandy wetness soil blowing	Limitation: droughty
Es: Elsmere-----	Limitation: cutbanks cave	Limitation: fast intake wetness droughty	Limitation: too sandy wetness soil blowing	Limitation: droughty
Ho: Holt-----	Limitation: deep to water	Limitation: thin layer soil blowing	Limitation: area reclaim soil blowing	Limitation: area reclaim
HoC: Holt-----	Limitation: deep to water	Limitation: slope thin layer soil blowing	Limitation: area reclaim soil blowing	Limitation: area reclaim
HtC: Holt-----	Limitation: deep to water	Limitation: slope thin layer soil blowing	Limitation: area reclaim soil blowing	Limitation: area reclaim
Longpine-----	Limitation: deep to water	Limitation: slope soil blowing	Limitation: depth to rock	Limitation: depth to rock
HtD: Holt-----	Limitation: deep to water	Limitation: slope thin layer soil blowing	Limitation: area reclaim slope soil blowing	Limitation: area reclaim slope

WATER MANAGEMENT--Continued
Keya Paha County, Nebraska

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Features affecting--			
	Drainage	Irrigation	Terraces and diversions	Grassed waterways
Longpine-----	Limitation: deep to water	Limitation: slope soil blowing	Limitation: slope depth to rock	Limitation: slope depth to rock
IfD: Inavale-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing	Limitation: droughty
IgB: Inavale-----	Limitation: deep to water	Limitation: fast intake droughty	Limitation: too sandy soil blowing	Limitation: droughty
IhB: Inavale-----	Limitation: deep to water	Limitation: fast intake droughty	Limitation: too sandy soil blowing	Limitation: droughty
IpB: Ipage-----	Limitation: deep to water	Limitation: fast intake droughty	Limitation: too sandy soil blowing	Limitation: droughty
Ja: Jansen-----	Limitation: deep to water	Limitation: droughty	Limitation: erodes easily too sandy	Limitation: erodes easily droughty
Jn: Jansen-----	Limitation: deep to water	Favorable	Limitation: erodes easily too sandy	Limitation: erodes easily
JnC: Jansen-----	Limitation: deep to water	Limitation: slope	Limitation: erodes easily too sandy	Limitation: erodes easily
JoB: Jansen-----	Limitation: deep to water	Favorable	Limitation: erodes easily too sandy	Limitation: erodes easily
Meadin-----	Limitation: deep to water	Limitation: droughty	Limitation: too sandy	Limitation: droughty
LaD: Labu-----	Limitation: deep to water	Limitation: slope slow intake droughty	Limitation: percs slowly slope depth to rock	Limitation: slope depth to rock droughty
LcF: Labu-----	Limitation: deep to water	Limitation: slope slow intake droughty	Limitation: percs slowly slope depth to rock	Limitation: slope depth to rock droughty
Sansarc-----	Limitation: deep to water	Limitation: slope slow intake droughty	Limitation: erodes easily slope depth to rock	Limitation: erodes easily slope droughty
Lo: Loup-----	Limitation: flooding cutbanks cave	Limitation: wetness droughty	Limitation: too sandy wetness	Limitation: wetness droughty
Lp: Loup-----	Limitation: flooding ponding cutbanks cave	Limitation: ponding droughty	Limitation: too sandy ponding	Limitation: wetness droughty
MaB: Holt Variant----	Limitation: deep to water	Limitation: fast intake soil blowing	Limitation: soil blowing	Favorable
MaC: Holt Variant----	Limitation: deep to water	Limitation: fast intake slope soil blowing	Limitation: soil blowing	Favorable
MfC: Holt Variant----	Limitation: deep to water	Limitation: slope soil blowing	Limitation: soil blowing	Favorable
MkG: Mariaville-----	Limitation: deep to water	Limitation: slope depth to rock	Limitation: erodes easily slope depth to rock	Limitation: erodes easily slope depth to rock
Keota-----	Limitation: deep to water	Limitation: erodes easily slope depth to rock	Limitation: erodes easily slope depth to rock	Limitation: erodes easily slope too arid

WATER MANAGEMENT--Continued
Keya Paha County, Nebraska

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Features affecting--			
	Drainage	Irrigation	Terraces and diversions	Grassed waterways
Mm: Marlake-----	Limitation: ponding cutbanks cave	Limitation: fast intake ponding droughty	Limitation: too sandy ponding	Limitation: wetness droughty
MnF: Meadin-----	Limitation: deep to water	Limitation: slope droughty	Limitation: slope too sandy	Limitation: slope droughty
Mu: Munjour-----	Limitation: deep to water	Limitation: soil blowing	Favorable	Favorable
OaB: O'Neill-----	Limitation: deep to water	Limitation: fast intake droughty	Limitation: too sandy soil blowing	Limitation: rooting depth droughty
Oe: O'Neill-----	Limitation: deep to water	Limitation: droughty	Limitation: too sandy soil blowing	Limitation: rooting depth droughty
OeC: O'Neill-----	Limitation: deep to water	Limitation: slope droughty	Limitation: too sandy soil blowing	Limitation: rooting depth droughty
OeD: O'Neill-----	Limitation: deep to water	Limitation: slope droughty	Limitation: too sandy soil blowing	Limitation: rooting depth droughty
OhB: O'Neill-----	Limitation: deep to water	Limitation: droughty	Limitation: too sandy soil blowing	Limitation: rooting depth droughty
Meadin-----	Limitation: deep to water	Limitation: droughty	Limitation: too sandy soil blowing	Limitation: droughty
OkD: O'Neill-----	Limitation: deep to water	Limitation: droughty	Limitation: too sandy soil blowing	Limitation: rooting depth droughty
Valentine-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing	Limitation: rooting depth droughty
On: Onita-----	Limitation: deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily
Or: Ord-----	Limitation: flooding frost action cutbanks cave	Limitation: flooding wetness soil blowing	Limitation: too sandy wetness soil blowing	Favorable
Loup-----	Limitation: flooding cutbanks cave	Limitation: wetness droughty	Limitation: too sandy wetness	Limitation: wetness droughty
Pf: Paka-----	Limitation: deep to water	Limitation: soil blowing	Limitation: erodes easily soil blowing	Limitation: erodes easily
Ph: Paka-----	Limitation: deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily
PhB: Paka-----	Limitation: deep to water	Favorable	Limitation: erodes easily	Limitation: erodes easily
Perched Wt-----	---	---	---	---
PmC: Paka-----	Limitation: deep to water	Limitation: slope	Limitation: erodes easily	Limitation: erodes easily
Mariaville-----	Limitation: deep to water	Limitation: slope depth to rock	Limitation: erodes easily depth to rock	Limitation: erodes easily depth to rock
PmF: Paka-----	Limitation: deep to water	Limitation: slope	Limitation: erodes easily slope	Limitation: erodes easily slope
Mariaville-----	Limitation: deep to water	Limitation: slope depth to rock	Limitation: erodes easily slope depth to rock	Limitation: erodes easily slope depth to rock
RaB: Ree-----	Limitation: deep to water	Favorable	Favorable	Favorable
Rb: Ree-----	Limitation: deep to water	Limitation: percs slowly	Favorable	Favorable

WATER MANAGEMENT--Continued
Keya Paha County, Nebraska

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Features affecting--			
	Drainage	Irrigation	Terraces and diversions	Grassed waterways
ReC: Reliance-----	Limitation: deep to water	Limitation: slope	Limitation: erodes easily	Limitation: erodes easily
RoD: Ronson-----	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: area reclaim soil blowing	Limitation: area reclaim droughty
Anselmo-----	Limitation: deep to water	Limitation: slope soil blowing	Limitation: soil blowing	Favorable
RoF: Ronson-----	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: area reclaim slope soil blowing	Limitation: area reclaim slope droughty
Anselmo-----	Limitation: deep to water	Limitation: slope soil blowing	Limitation: slope soil blowing	Limitation: slope
RtB: Ronson-----	Limitation: deep to water	Limitation: soil blowing droughty	Limitation: area reclaim soil blowing	Limitation: area reclaim droughty
Longpine-----	Limitation: deep to water	Limitation: soil blowing	Limitation: depth to rock	Limitation: depth to rock
SaG: Sansarc-----	Limitation: deep to water	Limitation: slope slow intake droughty	Limitation: erodes easily slope depth to rock	Limitation: erodes easily slope droughty
ScF: Schamber-----	Limitation: deep to water	Limitation: slope droughty	Limitation: slope too sandy	Limitation: slope too arid droughty
SmF: Simeon-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing	Limitation: slope droughty
Holt Variant----	Limitation: deep to water	Limitation: fast intake slope soil blowing	Limitation: soil blowing	Favorable
Ronson-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: area reclaim slope soil blowing	Limitation: area reclaim slope droughty
SvF2: Simeon-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing	Limitation: slope droughty
Valentine-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing	Limitation: rooting depth slope droughty
SwB: Simeon-----	Limitation: deep to water	Limitation: fast intake droughty	Limitation: too sandy soil blowing	Limitation: droughty
Valentine-----	Limitation: deep to water	Limitation: fast intake droughty	Limitation: too sandy soil blowing	Limitation: rooting depth droughty
TaF: Longpine-----	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: slope depth to rock	Limitation: slope depth to rock
TdE: Longpine-----	Limitation: deep to water	Limitation: slope soil blowing	Limitation: slope depth to rock	Limitation: slope depth to rock
Duda-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy depth to rock	Limitation: slope depth to rock droughty
Wt At 0-1 Foot--	---	---	---	---
TrG: Longpine-----	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: slope depth to rock	Limitation: slope depth to rock

WATER MANAGEMENT--Continued
Keya Paha County, Nebraska

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Features affecting--			
	Drainage	Irrigation	Terraces and diversions	Grassed waterways
Ronson-----	Limitation: deep to water	Limitation: slope soil blowing droughty	Limitation: area reclaim slope soil blowing	Limitation: area reclaim slope droughty
Duda-----	Limitation: deep to water	Limitation: slope droughty	Limitation: slope too sandy depth to rock	Limitation: slope depth to rock droughty
Tu: Hennings-----	Limitation: deep to water	Limitation: droughty	Limitation: erodes easily too sandy	Limitation: erodes easily droughty
VaF: Valentine-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing	Limitation: rooting depth slope droughty
VaG: Valentine-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing	Limitation: rooting depth slope droughty
VbD: Valentine-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing	Limitation: rooting depth droughty
VcF: Valentine-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing	Limitation: rooting depth slope droughty
Longpine-----	Limitation: deep to water	Limitation: slope soil blowing	Limitation: slope depth to rock	Limitation: slope depth to rock
VdC: Valentine-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing	Limitation: rooting depth droughty
Valentine-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: too sandy soil blowing	Limitation: rooting depth droughty
Wewela-----	Limitation: deep to water	Limitation: fast intake percs slowly slope	Limitation: area reclaim soil blowing	Limitation: area reclaim percs slowly
VdF: Valentine-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing	Limitation: rooting depth slope droughty
Valentine-----	Limitation: deep to water	Limitation: fast intake slope droughty	Limitation: slope too sandy soil blowing	Limitation: rooting depth slope droughty
Wewela-----	Limitation: deep to water	Limitation: fast intake percs slowly slope	Limitation: area reclaim soil blowing	Limitation: area reclaim percs slowly
Ve: Verdel-----	Limitation: deep to water	Limitation: percs slowly	Limitation: percs slowly	Limitation: percs slowly
VeB: Verdel-----	Limitation: deep to water	Limitation: percs slowly	Limitation: percs slowly	Limitation: percs slowly
VeC: Verdel-----	Limitation: deep to water	Limitation: percs slowly slope	Limitation: percs slowly	Limitation: percs slowly
Vo: Vetal-----	Limitation: deep to water	Limitation: soil blowing	Limitation: soil blowing	Favorable
Vt: Vetal-----	Limitation: deep to water	Favorable	Favorable	Favorable
VtB: Vetal-----	Limitation: deep to water	Favorable	Favorable	Favorable
VtC: Vetal-----	Limitation: deep to water	Limitation: slope	Favorable	Favorable

WATER MANAGEMENT--Continued
Keya Paha County, Nebraska

(The information in this report indicates the dominant soil condition but does not eliminate the need for onsite investigation)

Map symbol and soil name	Features affecting--			
	Drainage	Irrigation	Terraces and diversions	Grassed waterways
WeB: Wewela-----	Limitation: deep to water	Limitation: percs slowly thin layer	Limitation: area reclaim soil blowing	Limitation: area reclaim percs slowly
WeC: Wewela-----	Limitation: deep to water	Limitation: percs slowly slope thin layer	Limitation: area reclaim soil blowing	Limitation: area reclaim percs slowly
zwa: Water-----	---	---	---	---
zwb: Water-----	---	---	---	---

WATER MANAGEMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer- fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ab: Albaton Variant-----	100	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Cutbanks cave Deep to water	1.00 0.00
AmB: Anselmo-----	100	Very limited Seepage	1.00	Somewhat limited Seepage	0.39	Very limited Deep to water	1.00
An: Anselmo-----	100	Very limited Seepage	1.00	Somewhat limited Seepage	1.00	Very limited Deep to water	1.00
AnC: Anselmo-----	100	Very limited Seepage	1.00	Somewhat limited Seepage	0.47	Very limited Deep to water	1.00
Ba: Barney-----	100	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 0.96	Very limited Cutbanks cave	1.00
Bo: Boel-----	100	Very limited Seepage	1.00	Very limited Seepage Depth to saturated zone	1.00 0.95	Very limited Cutbanks cave Deep to water	1.00 0.02
Bt: Brocksburg-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
Cb: Cass-----	100	Very limited Seepage	1.00	Somewhat limited Seepage	0.70	Very limited Deep to water	1.00
CcB: Cass-----	100	Very limited Seepage	1.00	Somewhat limited Seepage	0.70	Very limited Deep to water	1.00
DdB: Duda-----	100	Very limited Seepage Depth to bedrock	1.00 0.11	Somewhat limited Thin layer Seepage	0.85 0.65	Very limited Deep to water	1.00
DdC: Duda-----	100	Very limited Seepage Depth to bedrock	1.00 0.11	Somewhat limited Thin layer Seepage	0.85 0.65	Very limited Deep to water	1.00
DuB: Dunday-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
DxB: Dunday-----	55	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
Duda-----	45	Very limited Seepage Depth to bedrock	1.00 0.11	Somewhat limited Thin layer Seepage	0.85 0.65	Very limited Deep to water	1.00
Eo: Els-----	100	Very limited Seepage	1.00	Somewhat limited Seepage Depth to saturated zone	1.00 0.95	Very limited Cutbanks cave Deep to water	1.00 0.02
Es: Elsmere-----	100	Very limited Seepage	1.00	Very limited Seepage Depth to saturated zone	1.00 0.95	Very limited Cutbanks cave Deep to water	1.00 0.02
Ho: Holt-----	100	Very limited Seepage Depth to bedrock	1.00 0.11	Somewhat limited Thin layer Seepage	0.85 0.70	Very limited Deep to water	1.00

WATER MANAGEMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer- fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
HoC: Holt-----	100	Very limited Seepage Depth to bedrock	1.00 0.11	Piping Somewhat limited Thin layer Seepage Piping	0.02 0.85 0.07 0.02	Very limited Deep to water	1.00
HtC: Holt-----	70	Very limited Seepage Depth to bedrock	1.00 0.11	Somewhat limited Thin layer Seepage Piping	0.85 0.70 0.02	Very limited Deep to water	1.00
Longpine-----	30	Somewhat limited Depth to bedrock Seepage	0.66 0.05	Very limited Thin layer Seepage	1.00 0.08	Very limited Deep to water	1.00
HtD: Holt-----	60	Very limited Seepage Depth to bedrock	1.00 0.11	Somewhat limited Thin layer Seepage Piping	0.85 0.07 0.02	Very limited Deep to water	1.00
Longpine-----	40	Somewhat limited Depth to bedrock Seepage	0.66 0.05	Very limited Thin layer Seepage	1.00 0.08	Very limited Deep to water	1.00
IfD: Inavale-----	100	Very limited Seepage	1.00	Somewhat limited Seepage	0.98	Very limited Deep to water	1.00
IgB: Inavale-----	100	Very limited Seepage	1.00	Somewhat limited Seepage	0.98	Very limited Deep to water	1.00
IhB: Inavale-----	100	Very limited Seepage	1.00	Somewhat limited Seepage	0.98	Very limited Deep to water	1.00
IpB: Ipage-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Cutbanks cave Deep to water	1.00 0.81
Ja: Jansen-----	100	Very limited Seepage	1.00	Somewhat limited Seepage	0.97	Very limited Deep to water	1.00
Jn: Jansen-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
JnC: Jansen-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
JoB: Jansen-----	60	Very limited Seepage	1.00	Somewhat limited Seepage	0.97	Very limited Deep to water	1.00
Meadin-----	40	Very limited Seepage	1.00	Somewhat limited Seepage	0.91	Very limited Deep to water	1.00
LaD: Labu-----	100	Somewhat limited Depth to bedrock	0.11	Somewhat limited Hard to pack Thin layer	0.97 0.85	Very limited Deep to water	1.00
LcF: Labu-----	60	Somewhat limited Slope Depth to bedrock	0.15 0.11	Somewhat limited Hard to pack Thin layer	0.97 0.85	Very limited Deep to water	1.00
Sansarc-----	40	Somewhat limited Depth to bedrock Slope	0.76 0.15	Very limited Thin layer Hard to pack	1.00 1.00	Very limited Deep to water	1.00
Lo: Loup-----	100	Very limited		Very limited		Very limited	

WATER MANAGEMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer- fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Lp: Loup-----	100	Seepage	1.00	Depth to saturated zone Seepage	1.00 1.00	Cutbanks cave	1.00
		Very limited Seepage	1.00	Very limited Ponding Depth to saturated zone Seepage	1.00 1.00	Very limited Cutbanks cave	1.00
MaB: Holt Variant-----	100	Very limited Seepage Depth to bedrock	1.00 0.00	Somewhat limited Thin layer Seepage Piping	0.11 0.07 0.02	Very limited Deep to water	1.00
MaC: Holt Variant-----	100	Very limited Seepage Depth to bedrock	1.00 0.00	Somewhat limited Thin layer Seepage Piping	0.11 0.07 0.02	Very limited Deep to water	1.00
MfC: Holt Variant-----	100	Very limited Seepage Depth to bedrock	1.00 0.00	Somewhat limited Thin layer Seepage Piping	0.11 0.07 0.02	Very limited Deep to water	1.00
MkG: Mariaville-----	60	Somewhat limited Slope Depth to bedrock	0.82 0.66	Very limited Thin layer Piping Seepage	1.00 0.50 0.05	Very limited Deep to water	1.00
Keota-----	40	Somewhat limited Seepage Slope Depth to bedrock	0.70 0.40 0.11	Very limited Piping Thin layer	1.00 0.85	Very limited Deep to water	1.00
Mm: Marlake-----	100	Very limited Seepage	1.00	Very limited Ponding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Cutbanks cave	1.00
MnF: Meadin-----	100	Very limited Seepage Slope	1.00 0.06	Somewhat limited Seepage	0.91	Very limited Deep to water	1.00
Mu: Munjor-----	100	Very limited Seepage	1.00	Somewhat limited Seepage	0.23	Very limited Deep to water	1.00
OaB: O'Neill-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
Oe: O'Neill-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
OeC: O'Neill-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
OeD: O'Neill-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
OhB: O'Neill-----	60	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
Meadin-----	40	Very limited Seepage	1.00	Somewhat limited Seepage	0.91	Very limited Deep to water	1.00

WATER MANAGEMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer- fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OkD: O'Neill-----	60	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
Valentine-----	40	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
On: Onita-----	100	Somewhat limited Seepage	0.70	Somewhat limited Depth to saturated zone Piping	0.86 0.02	Very limited Deep to water	1.00
Or: Ord-----	70	Very limited Seepage	1.00	Somewhat limited Seepage Depth to saturated zone	0.96 0.95	Very limited Cutbanks cave Deep to water	1.00 0.02
Loup-----	30	Very limited Seepage	1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Cutbanks cave	1.00
Pf: Paka-----	100	Very limited Seepage Depth to bedrock	1.00 0.00	Very limited Piping Thin layer Seepage	1.00 0.11 0.08	Very limited Deep to water	1.00
Ph: Paka-----	100	Somewhat limited Seepage Depth to bedrock	0.70 0.00	Somewhat limited Piping Thin layer	0.92 0.11	Very limited Deep to water	1.00
PhB: Paka-----	100	Somewhat limited Seepage Depth to bedrock	0.70 0.00	Somewhat limited Piping Thin layer	0.92 0.11	Very limited Deep to water	1.00
Perched Wt-----		Very limited Seepage Slope	1.00 0.50	Very limited Hard to pack	1.00	Very limited Deep to water	1.00
PmC: Paka-----	60	Somewhat limited Seepage Depth to bedrock	0.70 0.00	Somewhat limited Piping Thin layer	0.92 0.11	Very limited Deep to water	1.00
Mariaville-----	40	Somewhat limited Depth to bedrock	0.66	Very limited Thin layer Piping Seepage	1.00 0.50 0.05	Very limited Deep to water	1.00
PmF: Paka-----	55	Somewhat limited Seepage Slope Depth to bedrock	0.70 0.15 0.00	Somewhat limited Piping Thin layer	0.92 0.11	Very limited Deep to water	1.00
Mariaville-----	45	Somewhat limited Depth to bedrock Slope	0.66 0.15	Very limited Thin layer Piping	1.00 0.50	Very limited Deep to water	1.00
RaB: Ree-----	100	Very limited Seepage	1.00	Very limited Seepage Piping	1.00 0.58	Very limited Deep to water	1.00
Rb: Ree-----	100	Somewhat limited Seepage Depth to bedrock	0.70 0.00	Somewhat limited Thin layer Piping Seepage	0.11 0.08 0.03	Very limited Deep to water	1.00
ReC: Reliance-----	100	Very limited Seepage	1.00	Very limited Seepage Piping	1.00 0.19	Very limited Deep to water	1.00

WATER MANAGEMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer- fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
RoD: Ronson-----	55	Very limited Seepage Depth to bedrock	1.00 0.11	Somewhat limited Thin layer Seepage	0.85 0.09	Very limited Deep to water	1.00
Anselmo-----	45	Very limited Seepage	1.00	Somewhat limited Seepage	0.09	Very limited Deep to water	1.00
RoF: Ronson-----	55	Very limited Seepage Slope Depth to bedrock	1.00 0.12 0.11	Somewhat limited Thin layer Seepage	0.85 0.09	Very limited Deep to water	1.00
Anselmo-----	45	Very limited Seepage Slope	1.00 0.01	Somewhat limited Seepage	0.09	Very limited Deep to water	1.00
RtB: Ronson-----	55	Very limited Seepage Depth to bedrock	1.00 0.11	Somewhat limited Thin layer Seepage	0.85 0.09	Very limited Deep to water	1.00
Longpine-----	45	Somewhat limited Depth to bedrock Seepage	0.66 0.05	Very limited Thin layer Seepage	1.00 0.08	Very limited Deep to water	1.00
SaG: Sansarc-----	100	Somewhat limited Depth to bedrock Slope	0.76 0.72	Very limited Thin layer Hard to pack	1.00 1.00	Very limited Deep to water	1.00
ScF: Schamber-----	100	Very limited Seepage Slope	1.00 0.15	Very limited Seepage	1.00	Very limited Deep to water	1.00
SmF: Simeon-----	40	Very limited Seepage Slope	1.00 0.00	Somewhat limited Seepage	0.70	Very limited Deep to water	1.00
Holt Variant-----	35	Very limited Seepage Depth to bedrock	1.00 0.00	Somewhat limited Thin layer Seepage Piping	0.11 0.07 0.02	Very limited Deep to water	1.00
Ronson-----	25	Very limited Seepage Depth to bedrock Slope	1.00 0.11 0.00	Somewhat limited Thin layer Seepage	0.85 0.19	Very limited Deep to water	1.00
SvF2: Simeon-----	60	Very limited Seepage Slope	1.00 0.00	Somewhat limited Seepage	0.98	Very limited Deep to water	1.00
Valentine-----	40	Very limited Seepage Slope	1.00 0.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
SwB: Simeon-----	65	Very limited Seepage	1.00	Somewhat limited Seepage	0.98	Very limited Deep to water	1.00
Valentine-----	35	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
TaF: Longpine-----	100	Somewhat limited Depth to bedrock Slope Seepage	0.66 0.06 0.05	Very limited Thin layer Seepage	1.00 0.08	Very limited Deep to water	1.00
TdE: Longpine-----	60	Somewhat limited Depth to bedrock Seepage	0.66 0.05	Very limited Thin layer Seepage	1.00 0.08	Very limited Deep to water	1.00
Duda-----	40	Very limited		Somewhat limited		Very limited	

WATER MANAGEMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer- fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Wt At 0-1 Foot-----		Seepage Depth to bedrock Slope	1.00 0.11 0.00	Thin layer Seepage	0.85 0.65	Deep to water	1.00
		Very limited Seepage Slope	1.00 0.50	Very limited Hard to pack	1.00	Very limited Deep to water	1.00
TrG: Longpine-----	40	Very limited Slope Depth to bedrock Seepage	1.00 0.66 0.05	Very limited Thin layer Seepage	1.00 0.92	Very limited Deep to water	1.00
Ronson-----	35	Very limited Seepage Slope Depth to bedrock	1.00 0.21 0.11	Somewhat limited Thin layer Seepage	0.85 0.09	Very limited Deep to water	1.00
Duda-----	25	Very limited Seepage Slope Depth to bedrock	1.00 0.21 0.11	Somewhat limited Thin layer Seepage	0.85 0.65	Very limited Deep to water	1.00
Tu: Hennings-----	100	Very limited Seepage Depth to bedrock	1.00 0.00	Somewhat limited Seepage Thin layer	0.46 0.11	Very limited Deep to water	1.00
VaF: Valentine-----	100	Very limited Seepage Slope	1.00 0.06	Very limited Seepage	1.00	Very limited Deep to water	1.00
VaG: Valentine-----	100	Very limited Seepage Slope	1.00 0.92	Very limited Seepage	1.00	Very limited Deep to water	1.00
VbD: Valentine-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
VcF: Valentine-----	75	Very limited Seepage Slope	1.00 0.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
Longpine-----	25	Somewhat limited Depth to bedrock Seepage Slope	0.66 0.05 0.00	Very limited Thin layer Seepage	1.00 0.08	Very limited Deep to water	1.00
VdC: Valentine-----	40	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Deep to water	1.00
Valentine-----	30	Very limited Seepage	1.00	Somewhat limited Seepage Piping	0.89 0.10	Very limited Cutbanks cave Slow refill Deep to water	1.00 0.95 0.81
Wewela-----	30	Somewhat limited Seepage Depth to bedrock	0.70 0.11	Somewhat limited Thin layer	0.85	Very limited Deep to water	1.00
VdF: Valentine-----	40	Very limited Seepage Slope	1.00 0.08	Very limited Seepage	1.00	Very limited Deep to water	1.00
Valentine-----	30	Very limited Seepage Slope	1.00 0.08	Somewhat limited Seepage Piping	0.89 0.10	Very limited Cutbanks cave Slow refill Deep to water	1.00 1.00 0.81
Wewela-----	30	Somewhat limited Seepage Depth to bedrock	0.70 0.11	Somewhat limited Thin layer Seepage	0.85 0.57	Very limited Deep to water	1.00

WATER MANAGEMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Pond Reservoir Area		Embankments, Dikes, and Levees		Excavated Ponds (Aquifer- fed)	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
				Piping	0.15		
Ve: Verdel-----	100	Not limited		Somewhat limited Hard to pack	0.83	Very limited Deep to water	1.00
VeB: Verdel-----	100	Somewhat limited Seepage	0.02	Somewhat limited Hard to pack	0.83	Very limited Deep to water	1.00
VeC: Verdel-----	100	Somewhat limited Seepage	0.02	Somewhat limited Hard to pack	0.83	Very limited Deep to water	1.00
Vo: Vetal-----	100	Very limited Seepage	1.00	Somewhat limited Seepage	0.47	Very limited Deep to water	1.00
Vt: Vetal-----	100	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.47	Very limited Deep to water	1.00
VtB: Vetal-----	100	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.47	Very limited Deep to water	1.00
VtC: Vetal-----	100	Very limited Seepage	1.00	Very limited Piping Seepage	1.00 0.09	Very limited Deep to water	1.00
WeB: Wewela-----	100	Somewhat limited Depth to bedrock	0.11	Somewhat limited Thin layer Hard to pack	0.85 0.39	Very limited Deep to water	1.00
WeC: Wewela-----	100	Somewhat limited Depth to bedrock	0.11	Somewhat limited Thin layer Hard to pack	0.85 0.39	Very limited Deep to water	1.00
zwa: Water-----	100	Not rated		Not rated		Not rated	
zwb: Water-----	100	Not rated		Not rated		Not rated	

SANITARY FACILITIES
Keya Paha County, Nebraska

Sanitary Facilities

The following tables show the degree and kind of soil limitations that affect septic tank absorption fields, sewage lagoons, sanitary landfills, and daily cover for landfill. The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect these uses. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slightly limited indicates that the soil has features that are favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Septic tank absorption fields are areas in which effluent from a septic tank is distributed into the soil through subsurface tiles or perforated pipe. Only that part of the soil between depths of 24 and 60 inches is evaluated. The ratings are based on the soil properties that affect absorption of the effluent, construction and maintenance of the system, and public health. Permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, and flooding affect absorption of the effluent. Stones and boulders, ice, and bedrock or a cemented pan interfere with installation. Subsidence interferes with installation and maintenance. Excessive slope may cause lateral seepage and surfacing of the effluent in downslope areas.

Some soils are underlain by loose sand and gravel or fractured bedrock at a depth of less than 4 feet below the distribution lines. In these soils the absorption field may not adequately filter the effluent, particularly when the system is new. As a result, the ground water may become contaminated.

Sewage lagoons are shallow ponds constructed to hold sewage while aerobic bacteria decompose the solid and liquid wastes. Lagoons should have a nearly level floor surrounded by cut slopes or embankments of compacted soil. Nearly impervious soil material for the lagoon floor and sides is required to minimize seepage and contamination of ground water. Considered in the ratings are slope, permeability, depth to a water table, ponding, depth to bedrock or a cemented pan, flooding, large stones, and content of organic matter.

Soil permeability is a critical property affecting the suitability for sewage lagoons. Most porous soils eventually become sealed when they are used as sites for sewage lagoons. Until sealing occurs, however, the hazard of pollution is severe. Soils that have a permeability rate of more than 2 inches per hour are too porous for the proper functioning of sewage lagoons. In these soils, seepage of the effluent can result in contamination of the ground water. Ground-water contamination is also a hazard if fractured bedrock is within a depth of 40 inches, if the water table is high enough to raise the level of sewage in the lagoon, or if floodwater overtops the lagoon.

A high content of organic matter is detrimental to proper functioning of the lagoon because it inhibits aerobic activity. Slope, bedrock, and cemented pans can cause construction problems, and large stones can hinder compaction of the lagoon floor. If the lagoon is to be uniformly deep throughout, the slope must be gentle enough and the soil material must be thick enough over bedrock or a cemented pan to make land smoothing practical.

A trench sanitary landfill is an area where solid waste is placed in successive layers in an excavated trench. The waste is spread, compacted, and covered daily with a thin layer of soil excavated at the site. When the trench is full, a final cover of soil material at least 2 feet thick is placed over the landfill. The ratings in the table are based on the soil properties that affect the risk of pollution, the ease of excavation, trafficability, and revegetation. These properties include permeability, depth to bedrock or a cemented pan, depth to a water table, ponding, slope, flooding, texture, stones and boulders, highly organic layers, soil reaction, and content of salts and sodium. Unless otherwise stated, the ratings apply only to that part of the soil within a depth of about 6 feet. For deeper trenches, onsite investigation may be needed.

Hard, nonrippable bedrock, creviced bedrock, or highly permeable strata in or directly below the proposed trench bottom can affect the ease of excavation and the hazard of ground-water pollution. Slope affects construction of the trenches and the movement of surface water around the landfill. It also affects the construction and performance of roads in areas of the landfill.

Soil texture and consistence affect the ease with which the trench is dug and the ease with which the soil can be used as daily or final cover. They determine the workability of the soil when dry and when wet. Soils that are plastic and sticky when wet are difficult to excavate, grade, or compact and are difficult to place as a uniformly thick cover over a layer of refuse.

The soil material used as the final cover for a trench landfill should be suitable for plants. It should not have excess sodium or salts and should not be too acid. The surface layer generally has the best workability, the highest content of organic matter, and the best potential for plants. Material from the surface layer should be stockpiled for use as the final cover.

SANITARY FACILITIES
Keya Paha County, Nebraska

In an area sanitary landfill, solid waste is placed in successive layers on the surface of the soil. The waste is spread, compacted, and covered daily with a thin layer of soil from a source away from the site. A final cover of soil material at least 2 feet thick is placed over the completed landfill. The ratings in the table are based on the soil properties that affect trafficability and the risk of pollution. These properties include flooding, permeability, depth to a water table, ponding, slope, and depth to bedrock or a cemented pan.

Flooding is a serious problem because it can result in pollution in areas downstream from the landfill. If permeability is too rapid or if fractured bedrock, a fractured cemented pan, or the water table is close to the surface, the leachate can contaminate the water supply. Slope is a consideration because of the extra grading required to maintain roads in the steeper areas of the landfill. Also, leachate may flow along the surface of the soils in the steeper areas and cause difficult seepage problems.

Daily cover for landfill is the soil material that is used to cover compacted solid waste in an area sanitary landfill. The soil material is obtained offsite, transported to the landfill, and spread over the waste. The ratings in the table also apply to the final cover for a landfill. They are based on the soil properties that affect workability, the ease of digging, and the ease of moving and spreading the material over the refuse daily during wet and dry periods. These properties include soil texture, depth to a water table, ponding, rock fragments, slope, depth to bedrock or a cemented pan, reaction, and content of salts, sodium, or lime.

Loamy or silty soils that are free of large stones and excess gravel are the best cover for a landfill. Clayey soils may be sticky and difficult to spread; sandy soils are subject to wind erosion.

Slope affects the ease of excavation and of moving the cover material. Also, it can influence runoff, erosion, and reclamation of the borrow area.

After soil material has been removed, the soil material remaining in the borrow area must be thick enough over bedrock, a cemented pan, or the water table to permit revegetation. The soil material used as the final cover for a landfill should be suitable for plants. It should not have excess sodium, salts, or lime and should not be too acid.

SANITARY FACILITIES--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Ab: Albaton Variant-----	100	Very limited Flooding Restricted permeability Depth to saturated zone Filtering capacity	1.00 1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00
AmB: Anselmo-----	100	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.00
An: Anselmo-----	100	Very limited Filtering capacity	1.00	Very limited Seepage	1.00
AnC: Anselmo-----	100	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.33
Ba: Barney-----	100	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00
Bo: Boel-----	100	Very limited Flooding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Flooding Seepage Depth to saturated zone	1.00 1.00 1.00
Bt: Brocksburg-----	100	Very limited Filtering capacity Restricted permeability	1.00 1.00	Very limited Seepage	1.00
Cb: Cass-----	100	Very limited Filtering capacity Flooding	1.00 0.40	Very limited Seepage Flooding	1.00 0.40
CcB: Cass-----	100	Very limited Flooding Filtering capacity	1.00 1.00	Very limited Flooding Seepage Slope	1.00 1.00 0.00
DdB: Duda-----	100	Very limited Depth to bedrock Filtering capacity	1.00 1.00	Very limited Depth to soft bedrock Seepage Slope	1.00 1.00 0.00
DdC: Duda-----	100	Very limited Depth to bedrock Filtering capacity	1.00 1.00	Very limited Depth to soft bedrock Seepage Slope	1.00 1.00 0.67
DuB: Dunday-----	100	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.00
DxB: Dunday-----	55	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.00
Duda-----	45	Very limited		Very limited	

SANITARY FACILITIES--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Eo: Els-----	100	Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Filtering capacity	1.00	Seepage	1.00
				Slope	0.00
Es: Elsmere-----	100	Very limited Depth to saturated zone	1.00	Very limited Seepage	1.00
		Filtering capacity	1.00	Depth to saturated zone	1.00
Ho: Holt-----	100	Very limited Depth to saturated zone	1.00	Very limited Seepage	1.00
		Filtering capacity	1.00	Depth to saturated zone	1.00
HoC: Holt-----	100	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
		Filtering capacity	1.00	Seepage	1.00
				Slope	0.33
HtC: Holt-----	70	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
		Filtering capacity	1.00	Seepage	1.00
				Slope	0.67
Longpine-----	30	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
				Seepage	1.00
				Slope	0.67
HtD: Holt-----	60	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
		Filtering capacity	1.00	Seepage	1.00
		Slope	0.04	Slope	1.00
Longpine-----	40	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
		Slope	0.04	Seepage	1.00
				Slope	1.00
IfD: Inavale-----	100	Very limited Filtering capacity	1.00	Very limited Seepage	1.00
				Slope	1.00
IgB: Inavale-----	100	Very limited Flooding	1.00	Very limited Flooding	1.00
		Filtering capacity	1.00	Seepage	1.00
				Slope	0.00
IhB: Inavale-----	100	Very limited Filtering capacity	1.00	Very limited Seepage	1.00
				Slope	0.00
IpB: Ipage-----	100	Very limited Filtering capacity	1.00	Very limited Seepage	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	0.71
				Slope	0.00
Ja: Jansen-----	100	Very limited		Very limited	

SANITARY FACILITIES--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Jn: Jansen-----	100	Filtering capacity	1.00	Seepage	1.00
		Very limited Filtering capacity	1.00	Very limited Seepage	1.00
		Restricted permeability	0.71		
JnC: Jansen-----	100	Very limited Filtering capacity	1.00	Very limited Seepage	1.00
		Restricted permeability	0.50	Slope	0.33
JoB: Jansen-----	60	Very limited Filtering capacity	1.00	Very limited Seepage	1.00
Meadin-----	40			Slope	0.00
		Very limited Filtering capacity	1.00	Very limited Seepage	1.00
LaD: Labu-----	100			Slope	0.00
		Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
LcF: Labu-----	60	Slope	0.04	Slope	1.00
		Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
Sansarc-----	40	Slope	1.00	Slope	1.00
		Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
Lo: Loup-----	100	Slope	1.00	Slope	1.00
		Very limited Depth to saturated zone	1.00	Very limited Seepage	1.00
Lp: Loup-----	100	Filtering capacity	1.00	Depth to saturated zone	1.00
		Very limited Ponding	1.00	Very limited Ponding	1.00
		Depth to saturated zone	1.00	Seepage	1.00
MaB: Holt Variant-----	100	Filtering capacity	1.00	Depth to saturated zone	1.00
		Somewhat limited Depth to bedrock	0.78	Very limited Seepage	1.00
MaC: Holt Variant-----	100			Depth to soft bedrock	0.42
				Slope	0.00
		Somewhat limited Depth to bedrock	0.78	Very limited Seepage	1.00
MfC: Holt Variant-----	100			Slope	0.67
				Depth to soft bedrock	0.42
		Somewhat limited Depth to bedrock	0.78	Very limited Seepage	1.00
MkG: Mariaville-----	60			Depth to soft bedrock	0.42
				Slope	0.33
		Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
Keota-----	40	Slope	1.00	Slope	1.00
				Seepage	0.50
		Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	0.50

SANITARY FACILITIES--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Mm: Marlake-----	100	Very limited Ponding Depth to saturated zone Filtering capacity	1.00 1.00 1.00	Very limited Ponding Seepage Depth to saturated zone	1.00 1.00 1.00
MnF: Meadin-----	100	Very limited Filtering capacity Slope	1.00 1.00	Very limited Seepage Slope	1.00 1.00
Mu: Munjor-----	100	Very limited Filtering capacity Flooding	1.00 0.40	Very limited Seepage Flooding	1.00 0.40
OaB: O'Neill-----	100	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.00
Oe: O'Neill-----	100	Very limited Filtering capacity	1.00	Very limited Seepage	1.00
OeC: O'Neill-----	100	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.33
OeD: O'Neill-----	100	Very limited Filtering capacity Slope	1.00 0.00	Very limited Seepage Slope	1.00 1.00
OhB: O'Neill-----	60	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.00
Meadin-----	40	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.00
OkD: O'Neill-----	60	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.00
Valentine-----	40	Very limited Filtering capacity	1.00	Very limited Seepage Slope	1.00 0.91
On: Onita-----	100	Very limited Restricted permeability Depth to saturated zone	1.00 1.00	Somewhat limited Depth to saturated zone Seepage	0.81 0.50
Or: Ord-----	70	Very limited Depth to saturated zone Filtering capacity	1.00 1.00	Very limited Seepage Depth to saturated zone	1.00 1.00
Loup-----	30	Very limited Depth to saturated zone Filtering capacity	1.00 1.00	Very limited Seepage Depth to saturated zone	1.00 1.00
Pf: Paka-----	100	Very limited Restricted permeability Depth to bedrock	1.00 0.78	Somewhat limited Depth to soft bedrock	0.42
Ph: Paka-----	100	Very limited Restricted permeability	1.00	Somewhat limited Seepage	0.50

SANITARY FACILITIES--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
PhB: Paka-----	100	Depth to bedrock	0.78	Depth to soft bedrock	0.42
		Very limited Restricted permeability	1.00	Somewhat limited Seepage	0.50
		Depth to bedrock	0.78	Depth to soft bedrock	0.42
Perched Wt----- PmC: Paka-----	60	Slope	1.00	Slope	0.00
		Very limited Restricted permeability	1.00	Very limited Slope	1.00
		Depth to bedrock	0.78	Somewhat limited Slope	0.67
Mariaville-----	40	Depth to bedrock	1.00	Seepage Depth to soft bedrock	0.50 0.42
		Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
				Slope	0.67
PmF: Paka-----	55	Seepage		Seepage	0.50
		Very limited Slope	1.00	Very limited Slope	1.00
		Restricted permeability	1.00	Seepage	0.50
Mariaville-----	45	Depth to bedrock	0.78	Depth to soft bedrock	0.42
		Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
RaB: Ree-----	100	Seepage		Seepage	0.50
		Very limited Restricted permeability	1.00	Very limited Seepage	1.00
		Filtering capacity	1.00	Slope	0.00
Rb: Ree-----	100	Depth to bedrock	0.78	Somewhat limited Seepage	0.50
		Very limited Restricted permeability	1.00	Depth to soft bedrock	0.42
		Depth to bedrock	0.78		
ReC: Reliance-----	100	Depth to bedrock	1.00	Very limited Seepage	1.00
		Very limited Restricted permeability	1.00	Slope	0.33
		Filtering capacity	1.00		
RoD: Ronson-----	55	Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
		Slope	0.00	Seepage	1.00
				Slope	1.00
Anselmo-----	45	Somewhat limited Slope	0.00	Very limited Seepage	1.00
				Slope	1.00
RoF: Ronson-----	55	Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
Anselmo-----	45	Somewhat limited Slope	0.84	Very limited Slope	1.00
				Seepage	1.00
RtB: Ronson-----	55	Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
				Seepage	1.00
				Slope	0.00
Longpine-----	45	Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00

SANITARY FACILITIES--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
SaG: Sansarc-----	100			Seepage	1.00
				Slope	0.00
		Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
ScF: Schamber-----	100	Slope	1.00	Slope	1.00
		Very limited Slope	1.00	Very limited Slope	1.00
		Filtering capacity	1.00	Seepage	1.00
SmF: Simeon-----	40	Very limited Filtering capacity	1.00	Very limited Seepage	1.00
		Slope	0.63	Slope	1.00
		Somewhat limited Depth to bedrock	0.78	Very limited Seepage	1.00
Holt Variant-----	35	Slope	0.00	Slope	1.00
				Depth to soft bedrock	0.42
		Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
Ronson-----	25	Slope	0.63	Seepage	1.00
				Slope	1.00
		Very limited Filtering capacity	1.00	Very limited Seepage	1.00
SvF2: Simeon-----	60	Slope	0.63	Slope	1.00
		Very limited Filtering capacity	1.00	Very limited Seepage	1.00
		Slope	0.63	Slope	1.00
Valentine-----	40	Very limited Filtering capacity	1.00	Very limited Seepage	1.00
		Slope	0.63	Slope	1.00
		Very limited Filtering capacity	1.00	Very limited Seepage	1.00
SwB: Simeon-----	65	Very limited Filtering capacity	1.00	Very limited Seepage	1.00
				Slope	0.00
		Very limited Filtering capacity	1.00	Very limited Seepage	1.00
Valentine-----	35			Slope	0.00
TaF: Longpine-----	100	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
		Slope	1.00	Seepage	1.00
				Slope	1.00
TdE: Longpine-----	60	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
		Slope	0.04	Slope	1.00
		Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
Duda-----	40	Filtering capacity	1.00	Seepage	1.00
		Slope	0.37	Slope	1.00
		Very limited Slope	1.00	Very limited Slope	1.00
TrG: Longpine-----	40	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
Ronson-----	35	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00
				Seepage	1.00
Duda-----	25	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock	1.00
		Slope	1.00	Slope	1.00

SANITARY FACILITIES--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
Tu: Hennings-----	100	Filtering capacity	1.00	Seepage	1.00
		Very limited		Very limited	
		Restricted permeability	1.00	Seepage	1.00
		Filtering capacity	1.00	Depth to soft bedrock	0.42
VaF: Valentine-----	100	Depth to bedrock	0.78		
		Very limited		Very limited	
VaG: Valentine-----	100	Slope	1.00	Slope	1.00
		Filtering capacity	1.00	Seepage	1.00
VbD: Valentine-----	100	Very limited		Very limited	
		Slope	1.00	Slope	1.00
VcF: Valentine-----	75	Filtering capacity	1.00	Seepage	1.00
		Slope	0.63	Slope	1.00
Longpine-----	25	Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.63	Seepage	1.00
VdC: Valentine-----	40	Very limited		Very limited	
		Filtering capacity	1.00	Seepage	1.00
Valentine-----	30	Very limited		Slope	0.67
		Restricted permeability	1.00	Very limited	
Wewela-----	30	Filtering capacity	1.00	Seepage	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	0.71
VdF: Valentine-----	40	Very limited		Slope	0.67
		Restricted permeability	1.00	Very limited	
Valentine-----	30	Depth to bedrock	1.00	Depth to soft bedrock	1.00
		Slope	0.00	Slope	0.67
Ve: Verdel-----	100	Very limited		Seepage	0.50
		Restricted permeability	1.00	Not limited	
VeB: Verdel-----	100	Very limited			
		Restricted permeability	1.00	Somewhat limited	
VeC: Verdel-----	100	Very limited		Slope	0.00

SANITARY FACILITIES--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.01 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Septic tank absorption fields		Sewage lagoons	
		Rating class and limiting features	Value	Rating class and limiting features	Value
		Restricted permeability	1.00	Slope	0.67
Vo: Vetal-----	100	Very limited Filtering capacity	1.00	Very limited Seepage	1.00
Vt: Vetal-----	100	Not limited		Very limited Seepage	1.00
VtB: Vetal-----	100	Very limited Filtering capacity	1.00	Very limited Seepage	1.00
VtC: Vetal-----	100	Very limited Filtering capacity	1.00	Slope	0.00
				Very limited Seepage	1.00
WeB: Wewela-----	100	Very limited Depth to bedrock	1.00	Slope	0.67
				Very limited Depth to soft bedrock Seepage	1.00 0.29
WeC: Wewela-----	100	Very limited Depth to bedrock	1.00	Very limited Depth to soft bedrock Slope Seepage	1.00 0.67 0.29
zwa: Water-----	100	Not rated		Not rated	
zwb: Water-----	100	Not rated		Not rated	

SANITARY FACILITIES--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ab: Albaton Variant-----	100	Very limited Flooding Depth to saturated zone Seepage Too Sandy	1.00 1.00 1.00 1.00	Very limited Flooding Depth to saturated zone	1.00 1.00 1.00	Very limited Too Sandy Seepage Depth to saturated zone	1.00 1.00 0.86
AmB: Anselmo-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Somewhat limited Seepage	0.50
An: Anselmo-----	100	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00 1.00
AnC: Anselmo-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Somewhat limited Seepage	0.50
Ba: Barney-----	100	Very limited Flooding Depth to saturated zone Seepage Too Sandy	1.00 1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Depth to saturated zone Too Sandy Seepage	1.00 1.00 1.00
Bo: Boel-----	100	Very limited Flooding Depth to saturated zone Seepage Too Sandy	1.00 1.00 1.00 1.00	Very limited Flooding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Too Sandy Seepage Depth to saturated zone	1.00 1.00 0.68
Bt: Brocksburg-----	100	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00 1.00
Cb: Cass-----	100	Very limited Seepage Flooding	1.00 0.40	Very limited Seepage Flooding	1.00 0.40	Somewhat limited Seepage	0.50
CcB: Cass-----	100	Very limited Flooding Seepage	1.00 1.00	Very limited Flooding Seepage	1.00 1.00	Somewhat limited Seepage	0.50
DdB: Duda-----	100	Very limited Depth to bedrock Too Sandy	1.00 1.00	Very limited Seepage Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Seepage Too Sandy	1.00 1.00 0.50
DdC: Duda-----	100	Very limited Depth to bedrock Too Sandy	1.00 1.00	Very limited Seepage Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Seepage Too Sandy	1.00 1.00 0.50
DuB: Dunday-----	100	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Seepage Too Sandy	1.00 0.50
DxB: Dunday-----	55	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00 1.00
Duda-----	45	Very limited Depth to bedrock Too Sandy	1.00 1.00	Very limited Seepage Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Seepage Too Sandy	1.00 1.00 0.50
Eo: Els-----	100	Very limited Depth to saturated zone Seepage Too Sandy	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Too Sandy Seepage Depth to saturated zone	1.00 1.00 0.68
Es: Elsmere-----	100	Very limited Depth to saturated zone Seepage Too Sandy	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Too Sandy Seepage Depth to saturated zone	1.00 1.00 0.68

SANITARY FACILITIES--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ho: Holt-----	100	Very limited Depth to bedrock Too Sandy Seepage	1.00 1.00 1.00	Very limited Depth to bedrock Seepage	1.00 1.00	Very limited Depth to bedrock Seepage Too Sandy	1.00 1.00 0.50
HoC: Holt-----	100	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Seepage	1.00 1.00	Very limited Depth to bedrock Seepage	1.00 1.00
HtC: Holt-----	70	Very limited Depth to bedrock Too Sandy	1.00 1.00	Very limited Depth to bedrock Seepage	1.00 1.00	Very limited Depth to bedrock Seepage Too Sandy	1.00 1.00 0.50
Longpine-----	30	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock Seepage	1.00 0.50
HtD: Holt-----	60	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Seepage Slope	1.00 1.00 0.04	Very limited Depth to bedrock Seepage Slope	1.00 1.00 0.04
Longpine-----	40	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Seepage Slope	1.00 0.50 0.04
IfD: Inavale-----	100	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00 1.00
IgB: Inavale-----	100	Very limited Flooding Seepage Too Sandy	1.00 1.00 1.00	Very limited Flooding Seepage	1.00 1.00	Very limited Too Sandy Seepage	1.00 1.00
IhB: Inavale-----	100	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00 1.00
IpB: Ipaga-----	100	Very limited Depth to saturated zone Seepage Too Sandy	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Too Sandy Seepage	1.00 1.00
Ja: Jansen-----	100	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00 1.00
Jn: Jansen-----	100	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00 1.00
JnC: Jansen-----	100	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00 1.00
JoB: Jansen-----	60	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00 1.00
Meadin-----	40	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage Gravel content	1.00 1.00 0.80
LaD: Labu-----	100	Very limited Depth to bedrock Too clayey Slope	1.00 1.00 0.04	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Too clayey Hard to compact Slope	1.00 1.00 1.00 0.04
LcF: Labu-----	60	Very limited Depth to bedrock Too clayey Slope	1.00 1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Too clayey Hard to compact Slope	1.00 1.00 1.00 1.00
Sansarc-----	40	Very limited Depth to bedrock Too clayey Slope	1.00 1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Too clayey Hard to compact Slope	1.00 1.00 1.00 1.00

SANITARY FACILITIES--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Lo: Loup-----	100	Very limited Depth to saturated zone Seepage Too Sandy	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Too Sandy Seepage Depth to saturated zone	1.00 1.00 1.00
Lp: Loup-----	100	Very limited Depth to saturated zone Ponding Seepage Too Sandy	1.00 1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Too Sandy Seepage	1.00 1.00 1.00 1.00
MaB: Holt Variant-----	100	Very limited Depth to bedrock	1.00	Very limited Seepage Depth to bedrock	1.00 0.42	Somewhat limited Seepage Depth to bedrock	0.50 0.42
MaC: Holt Variant-----	100	Very limited Depth to bedrock	1.00	Very limited Seepage Depth to bedrock	1.00 0.42	Somewhat limited Seepage Depth to bedrock	0.50 0.42
MfC: Holt Variant-----	100	Very limited Depth to bedrock	1.00	Very limited Seepage Depth to bedrock	1.00 0.42	Somewhat limited Seepage Depth to bedrock	0.50 0.42
MkG: Mariaville-----	60	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00
Keota-----	40	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Slope	1.00	Very limited Depth to bedrock Slope	1.00 1.00
Mm: Marlake-----	100	Very limited Depth to saturated zone Ponding Seepage Too Sandy	1.00 1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Seepage	1.00 1.00 1.00	Very limited Ponding Depth to saturated zone Too Sandy Seepage	1.00 1.00 1.00 1.00
MnF: Meadin-----	100	Very limited Seepage Too Sandy Slope	1.00 1.00 1.00	Very limited Seepage Slope	1.00 1.00	Very limited Too Sandy Seepage Slope Gravel content	1.00 1.00 1.00 0.96
Mu: Munjor-----	100	Very limited Seepage Flooding	1.00 0.40	Very limited Seepage Flooding	1.00 0.40	Somewhat limited Seepage	0.50
OaB: O'Neill-----	100	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00 1.00
Oe: O'Neill-----	100	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00 1.00
OeC: O'Neill-----	100	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00 1.00
OeD: O'Neill-----	100	Very limited Seepage Too Sandy Slope	1.00 1.00 0.00	Very limited Seepage Slope	1.00 0.00	Very limited Too Sandy Seepage Slope	1.00 1.00 0.00
OhB: O'Neill-----	60	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00 1.00
Meadin-----	40	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage Gravel content	1.00 1.00 0.89
OkD: O'Neill-----	60	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00 1.00
Valentine-----	40	Very limited		Very limited		Very limited	

SANITARY FACILITIES--Continued
Keya Paha County, Nebraska

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
On: Onita-----	100	Seepage Too Sandy	1.00 1.00	Seepage	1.00	Too Sandy Seepage	1.00 1.00
		Somewhat limited Depth to saturated zone	0.86	Somewhat limited Depth to saturated zone	0.19	Very limited Hard to compact Depth to saturated zone	1.00 0.47
Or: Ord-----	70	Very limited Depth to saturated zone Seepage Too Sandy	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Too Sandy Seepage Depth to saturated zone	1.00 0.68
		Very limited Depth to saturated zone Seepage Too Sandy	1.00 1.00 1.00	Very limited Depth to saturated zone Seepage	1.00 1.00	Very limited Too Sandy Seepage Depth to saturated zone	1.00 1.00
Pf: Paka-----	100	Very limited Depth to bedrock Too clayey	1.00 0.50	Very limited Seepage Depth to bedrock	1.00 0.42	Somewhat limited Too clayey Depth to bedrock	0.50 0.42
		Very limited Depth to bedrock	1.00	Somewhat limited Depth to bedrock	0.42	Somewhat limited Depth to bedrock	0.42
Ph: Paka-----	100	Very limited Depth to bedrock	1.00	Somewhat limited Depth to bedrock	0.42	Somewhat limited Depth to bedrock	0.42
		Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
PmC: Paka-----	60	Very limited Depth to bedrock	1.00	Somewhat limited Depth to bedrock	0.42	Somewhat limited Depth to bedrock	0.42
		Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
PmF: Paka-----	55	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Slope Depth to bedrock	1.00 0.42	Very limited Slope Depth to bedrock	1.00 0.42
		Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00
RaB: Ree-----	100	Very limited Seepage Too clayey	1.00 0.50	Not limited		Somewhat limited Too clayey	0.50
		Very limited Depth to bedrock Seepage	1.00 1.00	Somewhat limited Depth to bedrock	0.42	Somewhat limited Depth to bedrock	0.42
ReC: Reliance-----	100	Very limited Seepage Too clayey	1.00 0.50	Not limited		Very limited Hard to compact Too clayey	1.00 0.50
		Very limited Depth to bedrock Slope	1.00 0.00	Very limited Seepage Depth to bedrock Slope	1.00 1.00 0.00	Very limited Depth to bedrock Seepage Slope	1.00 0.50 0.00
RoD: Ronson-----	55	Very limited Depth to bedrock Slope	1.00 0.00	Very limited Seepage Depth to bedrock Slope	1.00 1.00 0.00	Somewhat limited Seepage Slope	0.50 0.50 0.00
		Very limited Depth to bedrock Slope	1.00 0.00	Very limited Seepage Slope	1.00 0.00	Very limited Depth to bedrock Slope	1.00 1.00 0.50
RoF: Ronson-----	55	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Seepage Depth to bedrock Slope	1.00 1.00 1.00	Somewhat limited Slope Seepage	0.84 0.50
		Very limited Depth to bedrock	1.00	Very limited Seepage Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Seepage	1.00 0.50
RtB: Ronson-----	55	Very limited Depth to bedrock	1.00	Very limited Seepage Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Seepage	1.00 0.50
		Very limited Depth to bedrock	1.00	Very limited Seepage Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Seepage	1.00 0.50
Longpine-----	45	Very limited Depth to bedrock	1.00	Very limited Seepage Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Seepage	1.00 0.50
		Very limited Depth to bedrock	1.00	Very limited Seepage Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Seepage Gravel content	1.00 0.50 0.00

SANITARY FACILITIES--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SaG: Sansarc-----	100	Very limited Slope Depth to bedrock Too clayey	1.00 1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Too clayey Hard to compact	1.00 1.00 1.00 1.00
ScF: Schamber-----	100	Very limited Too Sandy Slope	1.00 1.00	Very limited Slope	1.00	Very limited Too Sandy Seepage Gravel content Slope	1.00 1.00 1.00 1.00
SmF: Simeon-----	40	Very limited Seepage Too Sandy Slope	1.00 1.00 0.63	Very limited Seepage Slope	1.00 0.63	Very limited Seepage Slope Too Sandy	1.00 0.63 0.50
Holt Variant-----	35	Very limited Depth to bedrock Slope	1.00 0.00	Very limited Seepage Depth to bedrock Slope	1.00 0.42 0.00	Somewhat limited Depth to bedrock Slope	0.42 0.00
Ronson-----	25	Very limited Depth to bedrock Seepage Slope	1.00 1.00 0.63	Very limited Seepage Depth to bedrock Slope	1.00 1.00 0.63	Very limited Depth to bedrock Slope Seepage	1.00 0.63 0.50
SvF2: Simeon-----	60	Very limited Seepage Too Sandy Slope	1.00 1.00 0.63	Very limited Seepage Slope	1.00 0.63	Very limited Too Sandy Seepage Slope	1.00 1.00 0.63
Valentine-----	40	Very limited Seepage Too Sandy Slope	1.00 1.00 0.63	Very limited Seepage Slope	1.00 0.63	Very limited Too Sandy Seepage Slope	1.00 1.00 0.63
SwB: Simeon-----	65	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00 1.00
Valentine-----	35	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00 1.00
TaF: Longpine-----	100	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope Seepage	1.00 1.00 0.50
TdE: Longpine-----	60	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Slope	1.00 0.04	Very limited Depth to bedrock Slope	1.00 0.04
Duda-----	40	Very limited Depth to bedrock Too Sandy Slope	1.00 1.00 0.37	Very limited Seepage Depth to bedrock Slope	1.00 1.00 0.37	Very limited Depth to bedrock Too Sandy Seepage Slope	1.00 1.00 1.00 0.37
Wt At 0-1 Foot-----		Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
TrG: Longpine-----	40	Very limited Slope Depth to bedrock Too Sandy	1.00 1.00 1.00	Very limited Slope Depth to bedrock	1.00 1.00	Very limited Depth to bedrock Slope Too Sandy Seepage Gravel content	1.00 1.00 1.00 1.00 0.08
Ronson-----	35	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Seepage Depth to bedrock Slope	1.00 1.00 1.00	Very limited Depth to bedrock Slope Seepage	1.00 1.00 0.50
Duda-----	25	Very limited Depth to bedrock Too Sandy Slope	1.00 1.00 1.00	Very limited Seepage Depth to bedrock Slope	1.00 1.00 1.00	Very limited Depth to bedrock Too Sandy Seepage Slope	1.00 1.00 1.00 1.00
Tu: Hennings-----	100	Very limited Depth to bedrock Too Sandy	1.00 1.00	Very limited Seepage Depth to bedrock	1.00 0.42	Very limited Seepage Too Sandy Depth to bedrock	1.00 0.50 0.42
VaF: Valentine-----	100	Very limited Seepage Too Sandy	1.00 1.00	Very limited Seepage Slope	1.00 1.00	Very limited Too Sandy Seepage	1.00 1.00

SANITARY FACILITIES--Continued
Keya Paha County, Nebraska

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		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
		Slope	1.00			Slope	1.00
VaG: Valentine-----	100	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Slope	1.00
		Seepage	1.00	Seepage	1.00	Too Sandy Seepage	1.00
		Too Sandy	1.00				
VbD: Valentine-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00
		Too Sandy	1.00				
VcF: Valentine-----	75	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00
		Too Sandy	1.00	Slope	0.63	Too Sandy Seepage	1.00
		Slope	0.63			Slope	0.63
Longpine-----	25	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Slope	0.63
						Seepage	0.50
VdC: Valentine-----	40	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00
		Too Sandy	1.00				
Valentine-----	30	Very limited Depth to	1.00	Very limited Depth to	1.00	Very limited Too Sandy	1.00
		saturated zone	1.00	saturated zone	1.00		
		Too Sandy	1.00	Seepage	1.00	Seepage	1.00
Wewela-----	30	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
		Too clayey	0.50			Too clayey	0.50
VdF: Valentine-----	40	Very limited Seepage	1.00	Very limited Seepage	1.00	Very limited Too Sandy Seepage	1.00
		Too Sandy	1.00	Slope	1.00	Seepage	1.00
		Slope	1.00			Slope	1.00
Valentine-----	30	Very limited Depth to	1.00	Very limited Depth to	1.00	Very limited Too Sandy	1.00
		saturated zone	1.00	saturated zone	1.00		
		Too Sandy	1.00	Seepage	1.00	Seepage	1.00
		Slope	1.00	Slope	1.00	Slope	1.00
Wewela-----	30	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
		Too Sandy	1.00	Slope	0.00	Seepage	1.00
		Slope	0.00			Hard to compact	1.00
						Too Sandy	0.50
						Slope	0.00
Ve: Verdel-----	100	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00
							1.00
VeB: Verdel-----	100	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00
							1.00
VeC: Verdel-----	100	Very limited Too clayey	1.00	Not limited		Very limited Too clayey Hard to compact	1.00
							1.00
Vo: Vetal-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Somewhat limited Seepage	0.50
Vt: Vetal-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Somewhat limited Seepage	0.50
VtB: Vetal-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Somewhat limited Seepage	0.50
VtC: Vetal-----	100	Very limited Seepage	1.00	Very limited Seepage	1.00	Somewhat limited Seepage	0.50
WeB: Wewela-----	100	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
		Too clayey	1.00			Too clayey	1.00
						Hard to compact	1.00
WeC: Wewela-----	100	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00
		Too clayey	1.00			Too clayey	1.00
						Hard to compact	1.00
zwa: Water-----	100	Not rated		Not rated		Not rated	

SANITARY FACILITIES--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Trench sanitary landfill		Area sanitary landfill		Daily cover for landfill	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
zwb: Water-----	100	Not rated		Not rated		Not rated	

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The nature of the soil is also important in the application of organic wastes and wastewater to land as fertilizers and irrigation; it is also important when the soil is used as a medium for treatment and disposal of these wastes. Favorable soil properties are required to prevent environmental damage.

The use of organic wastes and wastewater as production resources will result in energy conservation, prevent the waste of these important resources, and prevent problems associated with their disposal. Where disposal is the goal, and a maximum amount is disposed in a minimum area to hold costs to a minimum, risk of environmental damage is the principal constraint. Where the reuse goal is pursued, and a minimum amount is applied to a maximum area to obtain the greatest benefit, environmental damage is unlikely.

Interpretations developed for waste management may include ratings for (1) manure and food processing wastes; (2) municipal sewage sludge; (3) irrigation use of wastewater; or (4) treatment of wastewater by the slow rate process, overland flow process, or rapid infiltration process. If available, these should be located in this subsection.

Soil properties are important considerations in areas where soils are used as sites for the treatment and disposal of organic waste and wastewater. Selection of soils with properties that favor waste management can help to prevent environmental damage.

The Ag-Waste tables show the degree and kind of soil limitations affecting the treatment of agricultural waste, including municipal and food-processing wastewater and effluent from lagoons or storage ponds. Municipal wastewater is the waste stream from a municipality. It contains domestic waste and may contain industrial waste. It may have received primary or secondary treatment. It is rarely untreated sewage. Food-processing wastewater results from the preparation of fruits, vegetables, milk, cheese, and meats for public consumption. In places it is high in content of sodium and chloride. In the context of these tables, the effluent in lagoons and storage ponds is from facilities used to treat or store food-processing wastewater or domestic or animal waste. Domestic and food-processing wastewater is very dilute, and the effluent from the facilities that treat or store it commonly is very low in content of carbonaceous and nitrogenous material; the content of nitrogen commonly ranges from 10 to 30 milligrams per liter. The wastewater from animal waste treatment lagoons or storage ponds, however, has much higher concentrations of these materials, mainly because the manure has not been diluted as much as the domestic waste. The content of nitrogen in this wastewater generally ranges from 50 to 2,000 milligrams per liter. When wastewater is applied, checks should be made to ensure that nitrogen, phosphorus, heavy metals, and salts are not added in excessive amounts.

The ratings in the tables are for waste management systems that not only dispose of and treat organic waste or wastewater but also are beneficial to crops (application of manure and food-processing waste, application of sewage sludge, and disposal of wastewater by irrigation) and for waste management systems that are designed only for the purpose of wastewater disposal and treatment (overland flow of wastewater, rapid infiltration of wastewater, and slow rate treatment of wastewater).

The ratings are both verbal and numerical. Rating class terms indicate the extent to which the soils are limited by all of the soil features that affect agricultural waste management. Not limited indicates that the soil has features that are very favorable for the specified use. Good performance and very low maintenance can be expected. Slightly limited indicates that the soil has features that are generally favorable for the specified use. The limitations are minor and can be easily overcome. Good performance and low maintenance can be expected. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected. Very limited indicates that the soil has one or more features that are unfavorable for the specified use. The limitations generally cannot be overcome without major soil reclamation, special design, or expensive installation procedures. Poor performance and high maintenance can be expected.

Numerical ratings in the tables indicate the severity of individual limitations. The ratings are shown as decimal fractions ranging from 0.00 to 1.00. They indicate gradations between the point at which a soil feature has the greatest negative impact on the use (1.00) and the point at which the soil feature is not a limitation (0.00).

Application of manure and food-processing waste not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in the soils where the material is applied. Manure is the excrement of livestock and poultry, and food-processing waste is damaged fruit and vegetables and the peelings, stems, leaves, pits, and soil particles removed in food preparation. The manure and food-processing waste are either solid, slurry, or liquid. Their nitrogen content varies. A high content of nitrogen limits the application rate. Toxic or otherwise dangerous wastes, such as those mixed with the lye used in food processing, are not considered in the ratings.

The ratings are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the waste is applied, and the method by which the waste is applied. The properties that affect absorption include permeability, depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, and available water capacity. The properties that affect plant growth and microbial activity include reaction, the sodium adsorption ratio, salinity, and bulk density. The wind erodibility group, the soil erodibility factor K, and slope are considered in estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of waste. Permanently frozen soils are unsuitable for waste treatment.

Application of sewage sludge not only disposes of waste material but also can improve crop production by increasing the supply of nutrients in the soils where the material is applied. In the context of this table, sewage sludge is the residual product of the treatment of municipal sewage. The solid component consists mainly of cell mass, primarily bacteria cells that developed during secondary treatment and have incorporated soluble organics into their own bodies. The sludge has small amounts of sand, silt, and other solid debris. The content of nitrogen varies. Some sludge has constituents that are toxic to plants or hazardous to the food chain, such as heavy metals and exotic organic compounds, and should be analyzed chemically prior to use.

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The content of water in the sludge ranges from about 98 percent to less than 40 percent. The sludge is considered liquid if it is more than about 90 percent water, slurry if it is about 50 to 90 percent water, and solid if it is less than about 50 percent water.

The ratings in the table are based on the soil properties that affect absorption, plant growth, microbial activity, erodibility, the rate at which the sludge is applied, and the method by which the sludge is applied. The properties that affect absorption, plant growth, and microbial activity include permeability, depth to a water table, ponding, the sodium adsorption ratio, depth to bedrock or a cemented pan, available water capacity, reaction, salinity, and bulk density. The wind erodibility group, the soil erodibility factor K, and slope are considered in estimating the likelihood that wind erosion or water erosion will transport the waste material from the application site. Stones, cobbles, a water table, ponding, and flooding can hinder the application of sludge. Permanently frozen soils are unsuitable for waste treatment.

Disposal of wastewater by irrigation not only disposes of municipal wastewater and wastewater from food-processing plants, lagoons, and storage ponds but also can improve crop production by increasing the amount of water available to crops. The ratings in the table are based on the soil properties that affect the design, construction, management, and performance of the irrigation system. The properties that affect design and management include the sodium adsorption ratio, depth to a water table, ponding, available water capacity, permeability, slope, and flooding. The properties that affect construction include stones, cobbles, depth to bedrock or a cemented pan, depth to a water table, and ponding.

The properties that affect performance include depth to bedrock or a cemented pan, bulk density, the sodium adsorption ratio, salinity, reaction, and the cation-exchange capacity, which is used to estimate the capacity of a soil to adsorb heavy metals. Permanently frozen soils are not suitable for disposal of wastewater by irrigation.

See the National Soil Handbook, September 1992, Part 620, for criteria used in rating soils for sanitary facilities and waste management.

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Map symbol and soil name	Pct of map unit	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ab: Albaton Variant-----	100	Very limited Restricted permeability Filtering capacity Depth to saturated zone Flooding Runoff limitation	1.00 1.00 1.00 0.60 0.40	Very limited Restricted permeability Flooding Filtering capacity Depth to saturated zone	1.00 1.00 1.00 1.00	Very limited Restricted permeability Filtering capacity Depth to saturated zone Flooding	1.00 1.00 1.00 0.60
AmB: Anselmo-----	100	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
An: Anselmo-----	100	Somewhat limited Filtering capacity	0.00	Somewhat limited Filtering capacity	0.00	Somewhat limited Filtering capacity	0.00
AnC: Anselmo-----	100	Somewhat limited Filtering capacity	0.00	Somewhat limited Filtering capacity	0.00	Somewhat limited Too steep for surface application Filtering capacity	0.08 0.00
Ba: Barney-----	100	Very limited Depth to saturated zone Flooding Depth to dense layer Filtering capacity Runoff limitation	1.00 1.00 1.00 1.00 0.40	Very limited Depth to saturated zone Flooding Filtering capacity Droughty	1.00 1.00 1.00 0.03	Very limited Depth to saturated zone Flooding Filtering capacity Droughty	1.00 1.00 1.00 0.03
Bo: Boel-----	100	Very limited Filtering capacity Depth to saturated zone Flooding Leaching limitation Droughty	1.00 0.95 0.60 0.45 0.05	Very limited Flooding Filtering capacity Depth to saturated zone Droughty	1.00 1.00 0.95 0.05	Very limited Filtering capacity Depth to saturated zone Flooding Droughty	1.00 0.95 0.60 0.05
Bt: Brocksburg-----	100	Very limited Filtering capacity Restricted permeability	1.00 0.43	Very limited Filtering capacity Restricted permeability	1.00 0.32	Very limited Filtering capacity Restricted permeability	1.00 0.32
Cb: Cass-----	100	Very limited Filtering capacity	1.00	Very limited Filtering capacity Flooding	1.00 0.40	Very limited Filtering capacity	1.00
CcB: Cass-----	100	Very limited Flooding Filtering capacity	1.00 1.00	Very limited Flooding Filtering capacity	1.00 1.00	Very limited Flooding Filtering capacity	1.00 1.00
DdB: Duda-----	100	Very limited Droughty Filtering capacity Leaching limitation Depth to bedrock	1.00 1.00 0.45 0.42	Very limited Droughty Filtering capacity Depth to bedrock	1.00 1.00 0.42	Very limited Droughty Filtering capacity Depth to bedrock	1.00 1.00 0.42
DdC: Duda-----	100	Very limited Droughty Filtering capacity Leaching limitation	1.00 1.00 0.45	Very limited Droughty Filtering capacity Depth to bedrock	1.00 1.00 0.42	Very limited Droughty Filtering capacity Depth to bedrock	1.00 1.00 0.42

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Map symbol and soil name	Pct of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
DuB: Dunday-----	100	Depth to bedrock	0.42			Too steep for surface application	0.31
		Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Leaching limitation	0.45	Droughty	0.10	Droughty	0.10
		Droughty	0.10				
DxB: Dunday-----	55	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Leaching limitation	0.45	Droughty	0.10	Droughty	0.10
		Droughty	0.10				
Duda-----	45	Very limited Droughty	1.00	Very limited Droughty	1.00	Very limited Droughty	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Leaching limitation	0.45	Depth to bedrock	0.42	Depth to bedrock	0.42
		Depth to bedrock	0.42				
Eo: Els-----	100	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Depth to saturated zone	0.95	Depth to saturated zone	0.95	Depth to saturated zone	0.95
		Droughty	0.78	Droughty	0.78	Droughty	0.78
		Leaching limitation	0.45				
Es: Elsmere-----	100	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Depth to saturated zone	0.95	Depth to saturated zone	0.95	Depth to saturated zone	0.95
		Leaching limitation	0.45	Droughty	0.42	Droughty	0.42
		Droughty	0.42				
Ho: Holt-----	100	Somewhat limited Droughty	0.69	Somewhat limited Droughty	0.69	Somewhat limited Droughty	0.69
		Depth to bedrock	0.42	Depth to bedrock	0.42	Depth to bedrock	0.42
		Sodium content	0.08	Sodium content	0.08	Sodium content	0.08
HoC: Holt-----	100	Somewhat limited Droughty	0.69	Somewhat limited Droughty	0.69	Somewhat limited Droughty	0.69
		Depth to bedrock	0.42	Depth to bedrock	0.42	Depth to bedrock	0.42
		Sodium content	0.08	Sodium content	0.08	Sodium content	0.08
						Too steep for surface application	0.08
HtC: Holt-----	70	Somewhat limited Droughty	0.69	Somewhat limited Droughty	0.69	Somewhat limited Droughty	0.69
		Depth to bedrock	0.42	Depth to bedrock	0.42	Depth to bedrock	0.42
		Sodium content	0.08	Sodium content	0.08	Too steep for surface application	0.31
						Sodium content	0.08
Longpine-----	30	Very limited Depth to bedrock	1.00	Very limited Droughty	1.00	Very limited Droughty	1.00
		Droughty	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Runoff limitation	0.40	Filtering capacity	0.00	Too steep for surface application	0.31
						Filtering capacity	0.00
HtD: Holt-----	60	Filtering capacity	0.00				
		Somewhat limited Droughty	0.69	Somewhat limited Droughty	0.69	Very limited Too steep for surface application	1.00
		Depth to bedrock	0.42	Depth to bedrock	0.42	Droughty	0.69
		Sodium content	0.08	Sodium content	0.08	Depth to bedrock	0.42

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Map symbol and soil name	Pct of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Longpine-----	40	Slope	0.04	Slope	0.04	Too steep for sprinkler application	0.22
		Very limited		Very limited		Sodium content	0.08
		Depth to bedrock	1.00	Droughty	1.00	Very limited	
		Droughty	1.00	Depth to bedrock	1.00	Droughty	1.00
IfD: Inavale-----	100	Runoff limitation	0.40	Slope	0.04	Depth to bedrock	1.00
		Slope	0.04	Filtering capacity	0.00	Too steep for surface application	1.00
		Filtering capacity	0.00			Too steep for sprinkler application	0.22
		Very limited		Very limited		Filtering capacity	0.00
IgB: Inavale-----	100	Filtering capacity	1.00	Filtering capacity	1.00	Very limited	
		Leaching limitation	0.45	Droughty	0.20	Filtering capacity	1.00
		Droughty	0.20			Too steep for surface application	0.91
						Droughty	0.20
IhB: Inavale-----	100	Very limited		Very limited		Too steep for sprinkler application	0.02
		Flooding	1.00	Flooding	1.00	Very limited	
		Filtering capacity	1.00	Filtering capacity	1.00	Flooding	1.00
		Leaching limitation	0.45	Droughty	0.20	Filtering capacity	1.00
IpB: Ipage-----	100	Droughty	0.20			Droughty	0.20
		Very limited		Very limited		Very limited	
		Filtering capacity	1.00	Filtering capacity	1.00	Flooding	1.00
		Droughty	0.50	Droughty	0.50	Filtering capacity	1.00
Ja: Jansen-----	100	Leaching limitation	0.45	Too acid	0.07	Droughty	0.50
		Too acid	0.02			Too acid	0.07
		Very limited		Very limited		Very limited	
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
Jn: Jansen-----	100	Droughty	0.04	Too acid	0.07	Too acid	0.07
		Too acid	0.02	Droughty	0.04	Droughty	0.04
		Very limited		Very limited		Very limited	
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
JnC: Jansen-----	100	Too acid	0.02	Too acid	0.07	Too acid	0.07
		Droughty	0.00	Droughty	0.00	Droughty	0.00
		Very limited		Very limited		Very limited	
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
JoB: Jansen-----	60	Too acid	0.02	Too acid	0.07	Too steep for surface application	0.08
		Droughty	0.01	Droughty	0.01	Too acid	0.07
		Droughty	0.00	Droughty	0.00	Droughty	0.00
		Very limited		Very limited		Very limited	
Meadin-----	40	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Too acid	0.02	Too acid	0.07	Too acid	0.07
		Droughty	0.01	Droughty	0.01	Droughty	0.01
		Very limited		Very limited		Very limited	

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Map symbol and soil name	Pct of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
LaD: Labu-----	100	Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Droughty	0.49	Droughty	0.49	Droughty	0.49
		Leaching limitation	0.45	Too acid	0.07	Too acid	0.07
		Too acid	0.02				
		Somewhat limited Droughty	0.97	Somewhat limited Droughty	0.97	Very limited Too steep for surface application	1.00
LcF: Labu-----	60	Depth to bedrock	0.42	Depth to bedrock	0.42	Droughty	0.97
		Runoff limitation	0.40	Slope	0.04	Depth to bedrock	0.42
		Slope	0.04			Too steep for sprinkler application	0.22
		Very limited Slope	1.00	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
		Droughty	0.97	Droughty	0.97	Too steep for sprinkler application	1.00
Sansarc-----	40	Depth to bedrock	0.42	Depth to bedrock	0.42	Droughty	0.97
		Runoff limitation	0.40			Depth to bedrock	0.42
		Very limited Restricted permeability	1.00	Very limited Droughty	1.00	Very limited Droughty	1.00
		Depth to bedrock	1.00	Restricted permeability	1.00	Restricted permeability	1.00
		Droughty Slope	1.00	Depth to bedrock Slope	1.00	Depth to bedrock Too steep for surface application	1.00
Lo: Loup-----	100	Runoff limitation	0.40			Too steep for sprinkler application	1.00
		Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Runoff limitation	0.40	Droughty	0.09	Droughty	0.09
		Droughty	0.09				
Lp: Loup-----	100	Very limited Ponding	1.00	Very limited Ponding	1.00	Very limited Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Runoff limitation	0.40	Droughty	0.09	Droughty	0.09
		Droughty	0.09				
MaB: Holt Variant-----	100	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Sodium content	0.08	Sodium content	0.08	Sodium content	0.08
MaC: Holt Variant-----	100	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Sodium content	0.08	Sodium content	0.08	Too steep for surface application	0.31
MfC: Holt Variant-----	100	Somewhat limited Sodium content	0.08	Somewhat limited Sodium content	0.08	Sodium content	0.08
						Too steep for surface application	0.08
MkG: Mariaville-----	60	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00	Very limited Depth to bedrock	1.00

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Map symbol and soil name	Pct of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Keota-----	40	Slope	1.00	Slope	1.00	Too steep for surface application	1.00
		Droughty	1.00	Droughty	1.00	Too steep for sprinkler application	1.00
		Runoff limitation	0.40			Droughty	1.00
		Very limited Slope	1.00	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
		Depth to bedrock	0.42	Depth to bedrock	0.42	Too steep for sprinkler application	1.00
		Droughty	0.36	Droughty	0.36	Depth to bedrock Droughty	0.42 0.36
Mm: Marlake-----	100	Very limited Ponding	1.00	Very limited Ponding	1.00	Very limited Ponding	1.00
		Depth to saturated zone	1.00	Depth to saturated zone	1.00	Depth to saturated zone	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Runoff limitation Droughty	0.40 0.23	Droughty	0.23	Droughty	0.23
MnF: Meadin-----	100	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Slope	1.00	Slope	1.00	Too steep for surface application	1.00
		Droughty	0.53	Droughty	0.53	Too steep for sprinkler application	1.00
		Leaching limitation Too acid	0.45 0.02	Too acid	0.07	Droughty Too acid	0.53 0.07
Mu: Munjor-----	100	Very limited Filtering capacity	1.00	Very limited Filtering capacity Flooding	1.00 0.40	Very limited Filtering capacity	1.00
OaB: O'Neill-----	100	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Depth to dense layer	1.00	Too acid	0.42	Too acid	0.42
		Droughty Too acid	0.41 0.11	Droughty	0.41	Droughty	0.41
Oe: O'Neill-----	100	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Depth to dense layer	1.00	Droughty	0.65	Droughty	0.65
		Droughty Too acid	0.65 0.11	Too acid	0.42	Too acid	0.42
OeC: O'Neill-----	100	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Depth to dense layer	1.00	Droughty	0.65	Droughty	0.65
		Droughty Too acid	0.65 0.11	Too acid	0.42	Too acid Too steep for surface application	0.42 0.08
OeD: O'Neill-----	100	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Depth to dense layer	1.00	Droughty	0.65	Too steep for surface application	1.00
		Droughty Too acid	0.65 0.11	Too acid Slope	0.42 0.00	Droughty Too acid	0.65 0.42

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(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
OhB: O'Neill-----	60	Slope	0.00			Too steep for sprinkler application	0.10
		Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Depth to dense layer	1.00	Droughty	0.52	Droughty	0.52
		Droughty	0.52	Too acid	0.42	Too acid	0.42
Meadin-----	40	Too acid	0.11				
		Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Droughty	0.92	Droughty	0.92	Droughty	0.92
		Leaching limitation	0.45	Too acid	0.07	Too acid	0.07
OkD: O'Neill-----	60	Too acid	0.02				
		Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Depth to dense layer	1.00	Droughty	0.80	Droughty	0.80
		Droughty	0.80	Too acid	0.42	Too acid	0.42
Valentine-----	40	Too acid	0.11				
		Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Droughty	0.75	Droughty	0.75	Droughty	0.75
		Leaching limitation	0.45			Too steep for surface application	0.66
On: Onita-----	100					Too steep for sprinkler application	0.00
		Very limited Restricted permeability	1.00	Very limited Restricted permeability	1.00	Very limited Restricted permeability	1.00
		Depth to saturated zone	0.86	Depth to saturated zone	0.86	Depth to saturated zone	0.86
Or: Ord-----	70						
		Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Depth to saturated zone	0.95	Depth to saturated zone	0.95	Depth to saturated zone	0.95
Loup-----	30						
		Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00	Very limited Depth to saturated zone	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Runoff limitation	0.40	Droughty	0.02	Droughty	0.02
Pf: Paka-----	100	Droughty	0.02				
		Somewhat limited Restricted permeability	0.43	Somewhat limited Restricted permeability	0.32	Somewhat limited Restricted permeability	0.32
		Filtering capacity	0.00	Filtering capacity	0.00	Filtering capacity	0.00
Ph: Paka-----	100						
		Somewhat limited Restricted permeability	0.41	Somewhat limited Restricted permeability	0.31	Somewhat limited Restricted permeability	0.31
PhB: Paka-----	100						
		Somewhat limited Restricted permeability	0.41	Somewhat limited Restricted permeability	0.31	Somewhat limited Restricted permeability	0.31
Perched Wt-----							
		Somewhat limited Restricted permeability	0.41	Somewhat limited Restricted permeability	0.31	Somewhat limited Restricted permeability	0.31
		Very limited Slope	1.00	Very limited Low adsorption	1.00	Very limited Low adsorption	1.00
		Low adsorption	1.00	Slope	1.00	Too steep for surface application	1.00
						Too steep for sprinkler application	1.00

AGRICULTURAL WASTE MANAGEMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
PmC: Paka-----	60	Somewhat limited Restricted permeability	0.41	Somewhat limited Restricted permeability	0.31	Somewhat limited Too steep for surface application Restricted permeability	0.31 0.31
Mariaville-----	40	Very limited Depth to bedrock Droughty Runoff limitation	1.00 1.00 0.40	Very limited Depth to bedrock Droughty	1.00 1.00	Very limited Depth to bedrock Droughty Too steep for surface application	1.00 1.00 0.31
PmF: Paka-----	55	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
		Restricted permeability	0.41	Restricted permeability	0.31	Too steep for sprinkler application Restricted permeability	1.00 0.31
Mariaville-----	45	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Slope	1.00 1.00	Very limited Depth to bedrock Too steep for surface application	1.00 1.00
		Droughty	1.00	Droughty	1.00	Too steep for sprinkler application	1.00
		Runoff limitation	0.40			Droughty	1.00
RaB: Ree-----	100	Somewhat limited Restricted permeability	0.30	Somewhat limited Restricted permeability	0.22	Somewhat limited Restricted permeability	0.22
Rb: Ree-----	100	Somewhat limited Restricted permeability	0.30	Somewhat limited Restricted permeability	0.22	Somewhat limited Restricted permeability	0.22
ReC: Reliance-----	100	Very limited Filtering capacity Restricted permeability	1.00 1.00	Very limited Filtering capacity Restricted permeability	1.00 1.00	Very limited Filtering capacity Restricted permeability Too steep for surface application	1.00 1.00 0.08
RoD: Ronson-----	55	Somewhat limited Droughty	0.98	Somewhat limited Droughty	0.98	Very limited Too steep for surface application	1.00
		Depth to bedrock Filtering capacity Slope	0.42 0.00 0.00	Depth to bedrock Filtering capacity Slope	0.42 0.00 0.00	Droughty Depth to bedrock Too steep for sprinkler application Filtering capacity	0.98 0.42 0.10 0.00
Anselmo-----	45	Somewhat limited Slope	0.00	Somewhat limited Slope	0.00	Very limited Too steep for surface application Too steep for sprinkler application	1.00 0.10
RoF: Ronson-----	55	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
		Droughty	0.98	Droughty	0.98	Too steep for sprinkler application	1.00
		Depth to bedrock	0.42	Depth to bedrock	0.42	Droughty	0.98

AGRICULTURAL WASTE MANAGEMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Anselmo-----	45	Filtering capacity	0.00	Filtering capacity	0.00	Depth to bedrock	0.42
						Filtering capacity	0.00
		Somewhat limited Slope	0.84	Somewhat limited Slope	0.84	Very limited Too steep for surface application	1.00
		Filtering capacity	0.00	Filtering capacity	0.00	Too steep for sprinkler application	0.89
RtB: Ronson-----	55					Filtering capacity	0.00
		Somewhat limited Droughty	0.98	Somewhat limited Droughty	0.98	Somewhat limited Droughty	0.98
		Depth to bedrock	0.42	Depth to bedrock	0.42	Depth to bedrock	0.42
		Filtering capacity	0.00	Filtering capacity	0.00	Filtering capacity	0.00
Longpine-----	45	Very limited Depth to bedrock	1.00	Very limited Droughty	1.00	Very limited Droughty	1.00
		Droughty	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Runoff limitation	0.40	Filtering capacity	0.00	Filtering capacity	0.00
		Filtering capacity	0.00				
SaG: Sansarc-----	100	Very limited Slope	1.00	Very limited Droughty	1.00	Very limited Droughty	1.00
		Restricted permeability	1.00	Restricted permeability	1.00	Restricted permeability	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Droughty	1.00	Slope	1.00	Too steep for surface application	1.00
ScF: Schamber-----	100	Runoff limitation	0.40			Too steep for sprinkler application	1.00
		Very limited Slope	1.00	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Too steep for sprinkler application	1.00
		Droughty	1.00	Droughty	1.00	Filtering capacity	1.00
SmF: Simeon-----	40	Leaching limitation	0.45			Droughty	1.00
		Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Too steep for surface application	1.00
		Slope	0.63	Slope	0.63	Filtering capacity	1.00
		Leaching limitation	0.45	Droughty	0.13	Too steep for sprinkler application	0.77
Holt Variant-----	35	Droughty	0.13			Droughty	0.13
		Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Droughty	0.99	Droughty	0.99	Too steep for surface application	1.00
		Sodium content	0.08	Sodium content	0.08	Too steep for sprinkler application	0.99
Ronson-----	25	Slope	0.00	Slope	0.00	Too steep for sprinkler application	0.10
		Very limited Droughty	1.00	Very limited Droughty	1.00	Sodium content	0.08
		Filtering capacity	1.00	Filtering capacity	1.00	Very limited Droughty	1.00
						Too steep for surface application	1.00

AGRICULTURAL WASTE MANAGEMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
SvF2: Simeon-----	60	Slope	0.63	Slope	0.63	Filtering capacity	1.00
		Depth to bedrock	0.42	Depth to bedrock	0.42	Too steep for sprinkler application	0.77
						Depth to bedrock	0.42
		Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Too steep for surface application	1.00
		Slope	0.63	Slope	0.63	Filtering capacity	1.00
Valentine-----	40	Leaching limitation	0.45	Droughty	0.25	Too steep for sprinkler application	0.77
		Droughty	0.25			Droughty	0.25
		Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Too steep for surface application	1.00
		Droughty	0.86	Droughty	0.86	Filtering capacity	1.00
		Slope Leaching limitation	0.63 0.45	Slope	0.63	Droughty Too steep for sprinkler application	0.86 0.77
SwB: Simeon-----	65	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Leaching limitation	0.45	Droughty	0.08	Droughty	0.08
		Droughty	0.08				
Valentine-----	35	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Droughty	0.80	Droughty	0.80	Droughty	0.80
		Leaching limitation	0.45				
TaF: Longpine-----	100	Very limited Depth to bedrock	1.00	Very limited Droughty	1.00	Very limited Droughty	1.00
		Droughty	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	1.00	Slope	1.00	Too steep for surface application	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Too steep for sprinkler application	1.00
		Runoff limitation	0.40			Filtering capacity	1.00
TdE: Longpine-----	60	Very limited Depth to bedrock	1.00	Very limited Droughty	1.00	Very limited Droughty	1.00
		Droughty	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Runoff limitation	0.40	Slope	0.04	Too steep for surface application	1.00
		Slope	0.04	Filtering capacity	0.00	Too steep for sprinkler application	0.22
		Low adsorption	0.00			Low adsorption	0.00
Duda-----	40	Very limited Droughty	1.00	Very limited Droughty	1.00	Very limited Droughty	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Too steep for surface application	1.00
		Leaching limitation	0.45	Depth to bedrock	0.42	Filtering capacity	1.00
		Depth to bedrock	0.42	Slope	0.37	Too steep for sprinkler application	0.59
		Slope	0.37			Depth to bedrock	0.42
Wt At 0-1 Foot-----		Very limited Slope	1.00	Very limited Low adsorption	1.00	Very limited Low adsorption	1.00

AGRICULTURAL WASTE MANAGEMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Application of manure and food-processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
TrG: Longpine-----	40	Low adsorption	1.00	Slope	1.00	Too steep for surface application	1.00
						Too steep for sprinkler application	1.00
		Very limited Slope	1.00	Very limited Droughty	1.00	Very limited Droughty	1.00
		Depth to bedrock	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Droughty	1.00	Slope	1.00	Too steep for surface application	1.00
Ronson-----	35	Filtering capacity	1.00	Filtering capacity	1.00	Too steep for sprinkler application	1.00
		Runoff limitation	0.40			Filtering capacity	1.00
		Very limited Slope	1.00	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
		Droughty	0.83	Droughty	0.83	Too steep for sprinkler application	1.00
		Depth to bedrock	0.42	Depth to bedrock	0.42	Droughty	0.83
Duda-----	25	Filtering capacity	0.00	Filtering capacity	0.00	Depth to bedrock	0.42
		Very limited Slope	1.00	Very limited Slope	1.00	Filtering capacity	0.00
						Very limited Too steep for surface application	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Too steep for sprinkler application	1.00
		Droughty	0.97	Droughty	0.97	Filtering capacity	1.00
Tu: Hennings-----	100	Leaching limitation	0.45	Depth to bedrock	0.42	Droughty	0.97
		Depth to bedrock	0.42			Depth to bedrock	0.42
		Somewhat limited Restricted permeability	0.41	Somewhat limited Restricted permeability	0.31	Somewhat limited Restricted permeability	0.31
VaF: Valentine-----	100	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Too steep for sprinkler application	1.00
		Droughty	0.86	Droughty	0.86	Filtering capacity	1.00
		Leaching limitation	0.45			Droughty	0.86
VaG: Valentine-----	100	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Too steep for sprinkler application	1.00
		Droughty	0.88	Droughty	0.88	Filtering capacity	1.00
		Leaching limitation	0.45			Droughty	0.88
VbD: Valentine-----	100	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Droughty	0.82	Droughty	0.82	Droughty	0.82
		Leaching limitation	0.45			Too steep for surface application	0.66

AGRICULTURAL WASTE MANAGEMENT--Continued
Keya Paha County, Nebraska

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Map symbol and soil name	Pct of map unit	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
VcF: Valentine-----	75					Too steep for sprinkler application	0.00
		Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Too steep for surface application	1.00
		Droughty	0.85	Droughty	0.85	Filtering capacity	1.00
		Slope Leaching limitation	0.63 0.45	Slope	0.63	Droughty Too steep for sprinkler application	0.85 0.77
Longpine-----	25	Very limited Depth to bedrock	1.00	Very limited Droughty	1.00	Very limited Droughty	1.00
		Droughty	1.00	Depth to bedrock	1.00	Depth to bedrock	1.00
		Slope	0.63	Slope	0.63	Too steep for surface application	1.00
		Runoff limitation	0.40	Filtering capacity	0.00	Too steep for sprinkler application	0.77
VdC: Valentine-----	40	Filtering capacity	0.00			Filtering capacity	0.00
		Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Droughty	0.82	Droughty	0.82	Droughty	0.82
		Leaching limitation	0.45			Too steep for surface application	0.31
Valentine-----	30	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00
		Leaching limitation	0.45	Restricted permeability	0.22	Too steep for surface application	0.31
		Restricted permeability	0.30	Droughty	0.00	Restricted permeability	0.22
		Droughty	0.00			Droughty	0.00
Wewela-----	30	Very limited Restricted permeability	1.00	Very limited Restricted permeability	1.00	Very limited Restricted permeability	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Filtering capacity	1.00
		Droughty	0.87	Droughty	0.87	Droughty	0.87
		Depth to bedrock	0.42	Depth to bedrock	0.42	Depth to bedrock Too steep for surface application	0.42 0.31
VdF: Valentine-----	40	Very limited Slope	1.00	Very limited Slope	1.00	Very limited Too steep for surface application	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Too steep for sprinkler application	1.00
		Droughty	0.95	Droughty	0.95	Filtering capacity	1.00
		Leaching limitation	0.45			Droughty	0.95
Valentine-----	30	Very limited Restricted permeability	1.00	Very limited Restricted permeability	1.00	Very limited Restricted permeability	1.00
		Slope	1.00	Slope	1.00	Too steep for surface application	1.00
		Filtering capacity	1.00	Filtering capacity	1.00	Too steep for sprinkler application	1.00
		Leaching limitation	0.45			Filtering capacity	1.00
Wewela-----	30	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00	Very limited Filtering capacity	1.00

AGRICULTURAL WASTE MANAGEMENT--Continued
Keya Paha County, Nebraska

(The information in this table indicates the dominant soil condition but does not eliminate the need for onsite investigation. The numbers in the value columns range from 0.00 to 1.00. The larger the value, the greater the potential limitation. See text for further explanation of ratings in this table.)

Map symbol and soil name	Pct of map unit	Application of manure and food- processing waste		Application of sewage sludge		Disposal of wastewater by irrigation	
		Rating class and limiting features	Value	Rating class and limiting features	Value	Rating class and limiting features	Value
Ve: Verdel-----	100	Droughty	0.92	Droughty	0.92	Too steep for surface application	1.00
		Depth to bedrock	0.42	Depth to bedrock	0.42	Droughty	0.92
		Slope	0.00	Slope	0.00	Depth to bedrock	0.42
VeB: Verdel-----	100	Very limited Restricted permeability	1.00	Very limited Restricted permeability	1.00	Too steep for sprinkler application	0.10
		Runoff limitation	0.40			Very limited Restricted permeability	1.00
VeC: Verdel-----	100	Very limited Restricted permeability	1.00	Very limited Restricted permeability	1.00	Very limited Restricted permeability	1.00
		Runoff limitation	0.40				
Vo: Vetal-----	100	Very limited Restricted permeability	1.00	Very limited Restricted permeability	1.00	Very limited Restricted permeability	1.00
		Runoff limitation	0.40				
Vt: Vetal-----	100	Somewhat limited Filtering capacity	0.00	Somewhat limited Filtering capacity	0.00	Too steep for surface application	0.31
						Very limited Restricted permeability	1.00
VtB: Vetal-----	100	Somewhat limited Filtering capacity	0.00	Somewhat limited Filtering capacity	0.00	Somewhat limited Filtering capacity	0.00
VtC: Vetal-----	100	Somewhat limited Filtering capacity	0.00	Somewhat limited Filtering capacity	0.00	Somewhat limited Filtering capacity	0.00
WeB: Wewela-----	100	Somewhat limited Droughty	0.71	Somewhat limited Droughty	0.71	Somewhat limited Droughty	0.71
		Depth to bedrock	0.42	Depth to bedrock	0.42	Depth to bedrock	0.42
		Filtering capacity	0.00	Filtering capacity	0.00	Filtering capacity	0.00
WeC: Wewela-----	100	Somewhat limited Droughty	0.71	Somewhat limited Droughty	0.71	Somewhat limited Droughty	0.71
		Depth to bedrock	0.42	Depth to bedrock	0.42	Depth to bedrock	0.42
		Filtering capacity	0.00	Filtering capacity	0.00	Too steep for surface application	0.31
zwa: Water-----	100	Not rated		Not rated		Filtering capacity	0.00
zwb: Water-----	100	Not rated		Not rated		Not rated	

In this section, hydric soils are defined and described and the hydric soils in the survey area are listed. The three essential characteristics of wetlands are hydrophytic vegetation, hydric soils, and wetland hydrology (Cowardin and others, 1979; U.S. Army Corps of Engineers, 1987; National Research Council, 1995; Tiner, 1985). Criteria for each of the characteristics must be met for areas to be identified as wetlands. Undrained hydric soils that have natural vegetation should support a dominant population of ecological wetland plant species. Hydric soils that have been converted to other uses should be capable of being restored to wetlands.

Hydric soils are defined by the National Technical Committee for Hydric Soils (NTCHS) as soils that formed under conditions of saturation, flooding, or ponding long enough during the growing season to develop anaerobic conditions in the upper part (Federal Register, 1994). These soils are either saturated or inundated long enough during the growing season to support the growth and reproduction of hydrophytic vegetation.

The NTCHS definition identifies general soil properties that are associated with wetness. In order to determine whether a specific soil is a hydric soil or nonhydric soil, however, more specific information, such as information about the depth and duration of the water table, is needed. Thus, criteria that identify those estimated soil properties unique to hydric soils have been established (Federal Register, 1995). These criteria are used to identify a phase of a soil series that normally is associated with wetlands. The criteria used are selected estimated soil properties that are described in "Soil Taxonomy" (USDA, 1999) and "Keys to Soil Taxonomy" (USDA, 1998) and in the "Soil Survey Manual" (USDA, 1993).

If soils are wet enough for a long enough period to be considered hydric, they should exhibit certain properties that can be easily observed in the field. These visible properties are indicators of hydric soils. The indicators used to make onsite determinations of hydric soils in this survey area are specified in "Field Indicators of Hydric Soils in the United States" (Hurt and others, 1996).

Hydric soils are identified by examining and describing the soil to a depth of about 20 inches. This depth may be greater if determination of an appropriate indicator so requires. It is always recommended that soils be excavated and described to the depth necessary for an understanding of the redoximorphic processes. Then, using the completed soil descriptions, soil scientists can compare the soil features required by each indicator and specify which indicators have been matched with the conditions observed in the soil. The soil can be identified as a hydric soil if at least one of the approved indicators is present.

Map units in the Hydric Soil Interpretations table meet the definition of hydric soils and, in addition, have at least one of the hydric soil indicators. This list can help in planning land uses; however, onsite investigation is recommended to determine the hydric soils on a specific site (National Research Council, 1995; Hurt and others, 1996).

Map units that are made up of hydric soils may have small areas, or inclusions, of nonhydric soils in the higher positions on the landform, and map units made up of nonhydric soils may have inclusions of hydric soils in the lower positions on the landform.

These map units, in general, do not meet the definition of hydric soils because they do not have one of the hydric soil indicators. A portion of these map units, however, may include hydric soils. Onsite investigation is recommended to determine whether hydric soils occur and the location of the included hydric soils.

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Keya Paha County, Nebraska

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All mapunits are displayed regardless of hydric status and are listed in alpha-numeric order by mapunit symbol. The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publication No. 1491, June, 1991). See the "Criteria for Hydric Soils" endnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the table.

Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
Ab: ALBATON VARIANT CLAY, 0 TO 2 PERCENT SLOPES	ALBATON VARIANT	Yes	flood plain	2B3	YES	NO	NO
AmB: ANSELMO LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	ANSELMO	No	flat, knoll, stream terrace	---	---	---	---
An: ANSELMO FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	ANSELMO	No	flat, stream terrace	---	---	---	---
AnC: ANSELMO FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES	PERCHED WT	Yes	depression	2A	YES	NO	NO
	ANSELMO	No	hill, valley side	---	---	---	---
	PERCHED WT	Yes	depression	2A	YES	NO	NO
Ba: BARNEY FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	BARNEY	Yes	flood plain	2B3	YES	NO	NO
Bo: BOEL FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	BOEL	No	flood plain	---	---	---	---
	BARNEY	Yes	swale	2B3,3	YES	NO	YES
Bt: BROCKSBURG LOAM, 0 TO 1 PERCENT SLOPES	BROCKSBURG	No	flat	---	---	---	---
	PERCHED WT	Yes	depression	2A	YES	NO	NO
Cb: CASS LOAM, 0 TO 2 PERCENT SLOPES	CASS	No	flood plain	---	---	---	---
	WT AT 0-1 FOOT	Yes	swale	2B3	YES	NO	NO
CCB: CASS LOAM, CHanneled, 0 TO 3 PERCENT SLOPES	CASS	No	flood plain	---	---	---	---
	WT AT 0-1 FOOT	Yes	swale	2B3	YES	NO	NO
DdB: DUDA LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	DUDA	No	flat, knoll	---	---	---	---
DdC: DUDA LOAMY FINE SAND, 3 TO 6 PERCENT SLOPES	DUDA	No	hill	---	---	---	---
DuB: DUNDAY LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	DUNDAY	No	hummock	---	---	---	---
	WT AT 0-1 FOOT	Yes	swale	2B2	YES	NO	NO
DxB: DUNDAY-DUDA LOAMY FINE SANDS, 0 TO 3 PERCENT SLOPES	DUNDAY	No	hummock	---	---	---	---
	DUDA	No	swale	---	---	---	---
	WT AT 0-1 FOOT	Yes	swale	2B2	YES	NO	NO
Eo: ELS FINE SAND, 0 TO 2 PERCENT SLOPES	ELS	No	interdune, stream terrace, swale	---	---	---	---
	LOUP MARLAKE	Yes	swale	2B3	YES	NO	NO
	MARLAKE	Yes	depression	2B1,3	YES	NO	YES
Es: ELSMERE LOAMY FINE SAND, 0 TO 2 PERCENT SLOPES	ELSMERE	No	interdune, stream terrace, swale	---	---	---	---
	MARLAKE	Yes	depression	2B1,3	YES	NO	YES
Ho: HOLT FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	HOLT	No	flat	---	---	---	---
	PERCHED WT	Yes	depression	2A	YES	NO	NO
HoC: HOLT FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES	HOLT	No	hill	---	---	---	---
HtC: HOLT-TASSEL FINE SANDY LOAMS, 3 TO 6 PERCENT SLOPES	HOLT	No	hill	---	---	---	---
	LONGPINE	No	hill	---	---	---	---

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Keya Paha County, Nebraska

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All mapunits are displayed regardless of hydric status and are listed in alpha-numeric order by mapunit symbol. The "Hydric Soils Criteria" columns indicate the conditions that caused the mapunit component to be classified as "Hydric" or "Non-Hydric". These criteria are defined in "Hydric Soils of the United States" (USDA Miscellaneous Publication No. 1491, June, 1991). See the "Criteria for Hydric Soils" endnote to determine the meaning of these columns. Spot symbols are footnoted at the end of the table.

Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
HtD: HOLT-TASSEL FINE SANDY LOAMS, 6 TO 11 PERCENT SLOPES	HOLT	No	hill	---	---	---	---
	LONGPINE	No	hill	---	---	---	---
IfD: INAVALE FINE SAND, 3 TO 11 PERCENT SLOPES	INAVALE	No	flood plain	---	---	---	---
IgB: INAVALE FINE SAND, CHANNELED, 0 TO 3 PERCENT SLOPES	INAVALE	No	flood plain	---	---	---	---
IhB: INAVALE LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	BARNEY	Yes	swale	2B3,3	YES	NO	YES
	INAVALE	No	flood plain	---	---	---	---
	BARNEY	Yes	swale	2B3,3	YES	NO	YES
IpB: IPAGE LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	IPAGE	No	hummock, interdune, stream terrace	---	---	---	---
	LOUP	Yes	swale	2B3	YES	NO	NO
Ja: JANSEN FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	JANSEN	No	flat	---	---	---	---
Jn: JANSEN LOAM, 0 TO 2 PERCENT SLOPES	JANSEN	No	flat	---	---	---	---
	PERCHED WT	Yes	playa	2A	YES	NO	NO
JnC: JANSEN LOAM, 2 TO 6 PERCENT SLOPES	JANSEN	No	hill	---	---	---	---
	PERCHED WT	Yes	playa	2A	YES	NO	NO
JoB: JANSEN-MEADIN LOAMS, 0 TO 3 PERCENT SLOPES	JANSEN	No	knoll	---	---	---	---
	MEADIN	No	swale	---	---	---	---
LaD: LABU SILTY CLAY, 6 TO 11 PERCENT SLOPES	LABU	No	hill, valley side	---	---	---	---
LcF: LABU-SANSARC SILTY CLAYS, 11 TO 30 PERCENT SLOPES	PONDED SOILS	Yes	playa	2B3,3	YES	NO	YES
	LABU	No	hill, valley side	---	---	---	---
	SANSARC	No	hill, valley side	---	---	---	---
	ALBATON	Yes	swale	2B3,3	YES	NO	YES
Lo: LOUP FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	LOUP	Yes	interdune, swale	2B3	YES	NO	NO
Lp: LOUP FINE SANDY LOAM, WET, 0 TO 2 PERCENT SLOPES	LOUP	Yes	interdune, swale	2B3,3	YES	NO	YES
MaB: MANTER LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	HOLT VARIANT	No	flat, knoll	---	---	---	---
	PERCHED WT	Yes	depression	2A	YES	NO	NO
MaC: MANTER LOAMY FINE SAND, 3 TO 6 PERCENT SLOPES	HOLT VARIANT	No	hill	---	---	---	---
MfC: MANTER FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES	HOLT VARIANT	No	hill	---	---	---	---
MkG: MARIAVILLE-KEOTA SILT LOAMS, 15 TO 60 PERCENT SLOPES	MARIAVILLE	No	valley side	---	---	---	---
	KEOTA	No	valley side	---	---	---	---
	ALBATON	Yes	flood plain	2B3	YES	NO	NO
Mm: MARLAKE LOAMY FINE SAND, 0 TO 1 PERCENT SLOPES	MARLAKE	Yes	depression, interdune	2B2,3	YES	NO	YES

HYDRIC SOIL INTERPRETATIONS
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Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
MnF: MEADIN GRAVELLY SANDY LOAM, 3 TO 30 PERCENT SLOPES	MEADIN	No	hill, valley side	---	---	---	---
Mu: MUNJOR FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	MUNJOR	No	flood plain	---	---	---	---
	BARNEY	Yes	swale	4,2B3	YES	YES	NO
OaB: O'NEILL LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	O'NEILL	No	flat, knoll	---	---	---	---
Oe: O'NEILL FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	O'NEILL	No	flat, stream terrace	---	---	---	---
	PERCHED WT	Yes	depression	2A	YES	NO	NO
OeC: O'NEILL FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES	O'NEILL	No	hill	---	---	---	---
	PERCHED WT	Yes	depression	2A	YES	NO	NO
OeD: O'NEILL FINE SANDY LOAM, 6 TO 9 PERCENT SLOPES	O'NEILL	No	hill	---	---	---	---
OhB: O'NEILL-MEADIN FINE SANDY LOAMS, 0 TO 3 PERCENT SLOPES	O'NEILL	No	knoll	---	---	---	---
	MEADIN	No	swale	---	---	---	---
OkD: O'NEILL-VALENTINE COMPLEX, 1 TO 9 PERCENT SLOPES	O'NEILL	No	hill	---	---	---	---
	VALENTINE	No	dune	---	---	---	---
On: ONITA SILT LOAM, 0 TO 1 PERCENT SLOPES	ONITA	No	flat, swale	---	---	---	---
	PERCHED WT	Yes	playa	2A	YES	NO	NO
Or: ORD-LOUP FINE SANDY LOAMS, 0 TO 2 PERCENT SLOPES	ORD	No	flat, interdune, stream terrace	---	---	---	---
	LOUP	Yes	interdune, stream terrace, swale	2B3	YES	NO	NO
Pf: PAKA FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	PAKA	No	flat	---	---	---	---
	LOUP	Yes	swale	2B3	YES	NO	NO
Ph: PAKA LOAM, 0 TO 1 PERCENT SLOPES	PAKA	No	flat	---	---	---	---
	PERCHED WT	Yes	playa	2A	YES	NO	NO
PhB: PAKA LOAM, 1 TO 3 PERCENT SLOPES	PAKA	No	hill	---	---	---	---
	PERCHED WT	Yes	playa	2A	YES	NO	NO
PmC: PAKA-MARIAVILLE LOAMS, 3 TO 6 PERCENT SLOPES	PAKA	No	hill	---	---	---	---
	MARIAVILLE	No	hill	---	---	---	---
PmF: PAKA-MARIAVILLE LOAMS, 11 TO 30 PERCENT SLOPES	PAKA	No	hill, valley side	---	---	---	---
	MARIAVILLE	No	hill, valley side	---	---	---	---
	WT AT 0-1 FOOT	Yes	flood plain	2B3,3	YES	NO	YES
RaB: REE LOAM, 1 TO 3 PERCENT SLOPES	REE	No	hill	---	---	---	---
	PERCHED WT	Yes	playa	2A	YES	NO	NO
Rb: REE LOAM, CLAYEY SUBSTRATUM, 0 TO 2 PERCENT SLOPES	REE	No	flat	---	---	---	---

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Keya Paha County, Nebraska

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Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
ReC: RELANCE SILT LOAM, 2 TO 6 PERCENT SLOPES	RELANCE	No	loess hill	---	---	---	---
RoD: RONSON-ANSELMO FINE SANDY LOAMS, 6 TO 9 PERCENT SLOPES	RONSON	No	hill	---	---	---	---
RoF: RONSON-ANSELMO FINE SANDY LOAMS, 9 TO 30 PERCENT SLOPES	ANSELMO	No	hill	---	---	---	---
	RONSON	No	hill, valley side	---	---	---	---
	ANSELMO	No	hill, valley side	---	---	---	---
RtB: RONSON-TASSEL FINE SANDY LOAMS, 0 TO 3 PERCENT SLOPES	RONSON	No	swale	---	---	---	---
SaG: SANSARC SILTY CLAY, 20 TO 40 PERCENT SLOPES	LONGPINE PERCHED WT	No Yes	knoll depression	2A ---	---	---	---
	SANSARC	No	hill, valley side	---	---	---	---
ScF: SCHAMBER GRAVELLY SANDY LOAM, 11 TO 30 PERCENT SLOPES	SCHAMBER	No	hill, valley side	---	---	---	---
SmF: SIMEON-MANTER-RONSON COMPLEX, 6 TO 17 PERCENT SLOPES	SIMEON	No	hill, valley side	---	---	---	---
	HOLT VARIANT	No	hill, valley side	---	---	---	---
	RONSON	No	hill, valley side	---	---	---	---
	PERCHED WT	Yes	depression	2A	YES	NO	NO
SvF2: SIMEON-VALENTINE FINE SANDS, 6 TO 17 PERCENT SLOPES, ERODED	SIMEON	No	hill, valley side	---	---	---	---
	VALENTINE	No	hill, valley side	---	---	---	---
SwB: SIMEON-VALENTINE LOAMY SANDS, 0 TO 3 PERCENT SLOPES	SIMEON	No	stream terrace, swale	---	---	---	---
	VALENTINE	No	hummock, stream terrace	---	---	---	---
	WT AT 0-1 FOOT	Yes	swale	2B2	YES	NO	NO
TaF: TASSEL LOAMY FINE SAND, 3 TO 30 PERCENT SLOPES	LONGPINE	No	butte, valley side	---	---	---	---
TdE: TASSEL-DUDA COMPLEX, 3 TO 15 PERCENT SLOPES	LONGPINE	No	hill, valley side	---	---	---	---
	DUDA	No	hill, swale, valley side	---	---	---	---
	WT AT 0-1 FOOT	Yes	swale	2B2	YES	NO	NO
TrG: TASSEL-RONSON-DUDA COMPLEX, 15 TO 70 PERCENT SLOPES	LONGPINE	No	valley side	---	---	---	---
	RONSON	No	valley side	---	---	---	---
	DUDA	No	valley side	---	---	---	---
Tu: TUTHILL FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	HENNINGS	No	flat	---	---	---	---
VaF: VALENTINE FINE SAND, ROLLING	PERCHED WT	Yes	depression	2A	YES	NO	NO
	VALENTINE	No	dune	---	---	---	---
VaG: VALENTINE FINE SAND, HILLY	VALENTINE	No	dune	---	---	---	---

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Keya Paha County, Nebraska

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Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria
VbD: VALENTINE LOAMY FINE SAND, GENTLY ROLLING	VALENTINE	No	dune	---	---	---	---
	WT AT 0-1 FOOT	Yes	swale	2B2	YES	NO	NO
VcF: VALENTINE-TASSEL COMPLEX, ROLLING	VALENTINE	No	dune, valley side	---	---	---	---
	LONGPINE	No	hill, swale, valley side	---	---	---	---
VdC: VALENTINE-WEWELA LOAMY FINE SANDS, 3 TO 6 PERCENT SLOPES	VALENTINE	No	dune	---	---	---	---
	VALENTINE WEWELA	No	dune	---	---	---	---
	WT AT 0-1 FOOT	Yes	knoll, swale swale	2B2	YES	NO	NO
VdF: VALENTINE-WEWELA LOAMY FINE SANDS, 6 TO 30 PERCENT SLOPES	VALENTINE	No	valley side	---	---	---	---
	VALENTINE WEWELA	No	valley side	---	---	---	---
	WT AT 0-1 FOOT	Yes	valley side swale	2B2	YES	NO	NO
Ve: VERDEL SILTY CLAY LOAM, 0 TO 1 PERCENT SLOPES	VERDEL	No	stream terrace	---	---	---	---
VeB: VERDEL SILTY CLAY LOAM, 1 TO 3 PERCENT SLOPES	VERDEL	No	stream terrace	---	---	---	---
VeC: VERDEL SILTY CLAY LOAM, 3 TO 6 PERCENT SLOPES	VERDEL	No	stream terrace	---	---	---	---
Vo: VETAL FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	VETAL	No	stream terrace, swale	---	---	---	---
	PERCHED WT	Yes	depression	2A	YES	NO	NO
Vt: VETAL LOAM, 0 TO 1 PERCENT SLOPES	VETAL	No	stream terrace, swale	---	---	---	---
	PERCHED WT	Yes	depression	2A	YES	NO	NO
VtB: VETAL LOAM, 1 TO 3 PERCENT SLOPES	VETAL	No	hill, stream terrace	---	---	---	---
	PERCHED WT	Yes	depression	2A	YES	NO	NO
VtC: VETAL LOAM, 3 TO 6 PERCENT SLOPES	VETAL	No	hill	---	---	---	---
WeB: WEWELA FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	WEWELA	No	flat, knoll	---	---	---	---
	WT AT 0-1 FOOT	Yes	swale	2B2	YES	NO	NO
WeC: WEWELA FINE SANDY LOAM, 3 TO 6 PERCENT SLOPES	WEWELA	No	hill	---	---	---	---
zwa: WATER > 40 ACRES	WATER	Unranked	---	---	---	---	---
zwb: WATER < 40 ACRES	WATER	Unranked	---	---	---	---	---

HYDRIC SOIL INTERPRETATIONS
HYDRIC SOILS LIST
Keya Paha County, Nebraska

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Map symbol and map unit name	Component	Hydric	Local landform	Hydric soils criteria			
				Hydric criteria code	Meets saturation criteria	Meets flooding criteria	Meets ponding criteria

FOOTNOTE: There may be small areas of included soils or miscellaneous areas that are significant to use and management of the soil; yet are too small to delineate on the soil map at the map's original scale. These may be designated as spot symbols and are defined in the published Soil Survey Report or the USDA-NRCS Technical Guide, Part II.

Areas mapped as water or any map unit that contains one of the following conventional symbols is considered a hydric soil map unit: marshes or swamps; wet spots; depressions; streams, lakes and ponds.

1. All Histosols except Folists, or
2. Soils in Aquic suborders, great groups, or subgroups, Albolls suborder, Aquisalids, Pachic subgroups, or Cumulic subgroups that are:
 - a. Somewhat poorly drained with a water table equal to 0.0 foot (ft) from the surface during the growing season, or
 - b. poorly drained or very poorly drained and have either:
 - (1) water table equal to 0.0 ft during the growing season if textures are coarse sand, sand, or fine sand in all layers within 20 inches (in),
or for other soils
 - (2) water table at less than or equal to 0.5 ft from the surface during the growing season if permeability is equal to or greater than 6.0 in/hour (h) in all layers within 20 in, or
 - (3) water table at less than or equal to 1.0 ft from the surface during the growing season if permeability is less than 6.0 in/h in any layer within 20 in, or
3. Soils that are frequently ponded for long duration or very long duration during the growing season, or
4. Soils that are frequently flooded for long duration or very long duration during the growing season.

HIGHLY ERODIBLE LANDS REPORT

Survey Area- KEYA PAHA COUNTY, NEBRASKA

Map Symbol	Soil Mapunit Name	HEL Classifications		
		C=30	R=100	wnd wat mu
Ab	ALBATON VARIANT CLAY, 0 TO 2 PERCENT SLOPES	3	3	3
AmB	ANSELMO LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	1	3	1
An	ANSELMO FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	3	3	3
AnC	ANSELMO FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES	3	3	3
Ba	BARNEY FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	1	3	1
Bo	BOEL FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	3	3	3
Bt	BROCKSBURG LOAM, 0 TO 1 PERCENT SLOPES	3	3	3
Cb	CASS LOAM, 0 TO 2 PERCENT SLOPES	3	3	3
CcB	CASS LOAM, CHANNELED, 0 TO 3 PERCENT SLOPES	3	3	3
DdB	DUDA LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	1	3	1
DdC	DUDA LOAMY FINE SAND, 3 TO 6 PERCENT SLOPES	1	3	1
DuB	DUNDAY LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	1	3	1
DxB	DUNDAY-DUDA LOAMY FINE SANDS, 0 TO 3 PERCENT SLOPES	1	3	1
Eo	ELS FINE SAND, 0 TO 2 PERCENT SLOPES	1	3	1
Es	ELSMERE LOAMY FINE SAND, 0 TO 2 PERCENT SLOPES	1	3	1
Ho	HOLT FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	3	3	3
HoC	HOLT FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES	3	3	3
HtC	HOLT-TASSEL FINE SANDY LOAMS, 3 TO 6 PERCENT SLOPES	2	2	2
HtD	HOLT-TASSEL FINE SANDY LOAMS, 6 TO 11 PERCENT SLOPES	2	2	2
IfD	INAVALE FINE SAND, 3 TO 11 PERCENT SLOPES	1	2	1
IgB	INAVALE FINE SAND, CHANNELED, 0 TO 3 PERCENT SLOPES	1	3	1
IhB	INAVALE LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	1	3	1
IpB	IPAGE LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	1	3	1
Ja	JANSEN FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	3	3	3
Jn	JANSEN LOAM, 0 TO 2 PERCENT SLOPES	3	3	3
JnC	JANSEN LOAM, 2 TO 6 PERCENT SLOPES	3	2	2
JoB	JANSEN-MEADIN LOAMS, 0 TO 3 PERCENT SLOPES	3	3	3
LaD	LABU SILTY CLAY, 6 TO 11 PERCENT SLOPES	3	2	2
LcF	LABU-SANSARC SILTY CLAYS, 11 TO 30 PERCENT SLOPES	2	1	1
Lo	LOUP FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	3	3	3
Lp	LOUP FINE SANDY LOAM, WET, 0 TO 2 PERCENT SLOPES	3	3	3
MaB	MANTER LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	1	3	1
MaC	MANTER LOAMY FINE SAND, 3 TO 6 PERCENT SLOPES	1	3	1
MfC	MANTER FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES	3	3	3
MkG	MARIAVILLE-KEOTA SILT LOAMS, 15 TO 60 PERCENT SLOPES	2	1	1
Mm	MARLAKE LOAMY FINE SAND, 0 TO 1 PERCENT SLOPES	3	3	3
MnF	MEADIN GRAVELLY SANDY LOAM, 3 TO 30 PERCENT SLOPES	1	2	1
Mu	MUNJOR FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	3	3	3
OaB	O'NEILL LOAMY FINE SAND, 0 TO 3 PERCENT SLOPES	1	3	1
Oe	O'NEILL FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	3	3	3
OeC	O'NEILL FINE SANDY LOAM, 2 TO 6 PERCENT SLOPES	3	3	3
OeD	O'NEILL FINE SANDY LOAM, 6 TO 9 PERCENT SLOPES	3	2	2
OhB	O'NEILL-MEADIN FINE SANDY LOAMS, 0 TO 3 PERCENT SLOPES	2	3	2
OkD	O'NEILL-VALENTINE COMPLEX, 1 TO 9 PERCENT SLOPES	2	2	2
On	ONITA SILT LOAM, 0 TO 1 PERCENT SLOPES	3	3	3
Or	ORD-LOUP FINE SANDY LOAMS, 0 TO 2 PERCENT SLOPES	3	3	3
Pf	PAKA FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	3	3	3
Ph	PAKA LOAM, 0 TO 1 PERCENT SLOPES	3	3	3
PhB	PAKA LOAM, 1 TO 3 PERCENT SLOPES	3	3	3
PmC	PAKA-MARIAVILLE LOAMS, 3 TO 6 PERCENT SLOPES	3	2	2
PmF	PAKA-MARIAVILLE LOAMS, 11 TO 30 PERCENT SLOPES	3	1	1
RaB	REE LOAM, 1 TO 3 PERCENT SLOPES	3	3	3
Rb	REE LOAM, CLAYEY SUBSTRATUM, 0 TO 2 PERCENT SLOPES	3	3	3
ReC	RELIANCE SILT LOAM, 2 TO 6 PERCENT SLOPES	3	2	2

RoD	RONSON-ANSELMO FINE SANDY LOAMS, 6 TO 9 PERCENT SLOPES	3	2	2
RoF	RONSON-ANSELMO FINE SANDY LOAMS, 9 TO 30 PERCENT SLOPES	3	2	2
RtB	RONSON-TASSEL FINE SANDY LOAMS, 0 TO 3 PERCENT SLOPES	2	3	2
SaG	SANSARC SILTY CLAY, 20 TO 40 PERCENT SLOPES	1	1	1
ScF	SCHAMBER GRAVELLY SANDY LOAM, 11 TO 30 PERCENT SLOPES	3	1	1
SmF	SIMEON-MANTER-RONSON COMPLEX, 6 TO 17 PERCENT SLOPES	1	2	1
SvF2	SIMEON-VALENTINE FINE SANDS, 6 TO 17 PERCENT SLOPES, ERODED	1	2	1
SwB	SIMEON-VALENTINE LOAMY SANDS, 0 TO 3 PERCENT SLOPES	1	3	1
TaF	TASSEL LOAMY FINE SAND, 3 TO 30 PERCENT SLOPES	1	2	1
TdE	TASSEL-DUDA COMPLEX, 3 TO 15 PERCENT SLOPES	1	2	1
TrG	TASSEL-RONSON-DUDA COMPLEX, 15 TO 70 PERCENT SLOPES	2	1	1
Tu	TUTHILL FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	3	3	3
VaF	VALENTINE FINE SAND, ROLLING	1	2	1
VaG	VALENTINE FINE SAND, HILLY	1	1	1
VbD	VALENTINE LOAMY FINE SAND, GENTLY ROLLING	1	2	1
VcF	VALENTINE-TASSEL COMPLEX, ROLLING	1	2	1
VdC	VALENTINE-WEWELA LOAMY FINE SANDS, 3 TO 6 PERCENT SLOPES	1	3	1
VdF	VALENTINE-WEWELA LOAMY FINE SANDS, 6 TO 30 PERCENT SLOPES	1	2	1
Ve	VERDEL SILTY CLAY LOAM, 0 TO 1 PERCENT SLOPES	3	3	3
VeB	VERDEL SILTY CLAY LOAM, 1 TO 3 PERCENT SLOPES	3	3	3
VeC	VERDEL SILTY CLAY LOAM, 3 TO 6 PERCENT SLOPES	3	2	2
Vo	VETAL FINE SANDY LOAM, 0 TO 2 PERCENT SLOPES	3	3	3
Vt	VETAL LOAM, 0 TO 1 PERCENT SLOPES	3	3	3
VtB	VETAL LOAM, 1 TO 3 PERCENT SLOPES	3	3	3
VtC	VETAL LOAM, 3 TO 6 PERCENT SLOPES	3	3	3
WeB	WEWELA FINE SANDY LOAM, 0 TO 3 PERCENT SLOPES	3	3	3
WeC	WEWELA FINE SANDY LOAM, 3 TO 6 PERCENT SLOPES	3	3	3